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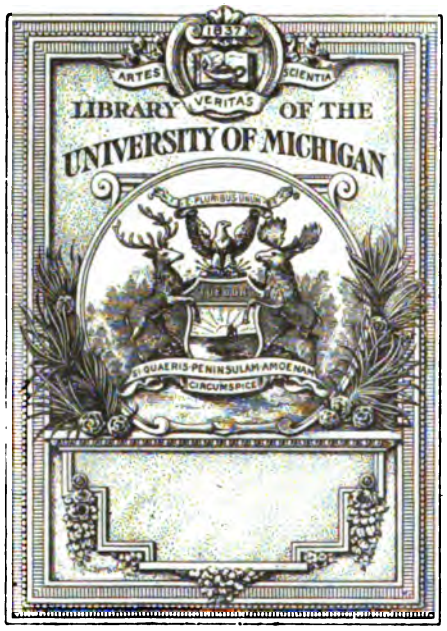
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CATALOGUE

—OF—

RUTGERS COLLEGE,

—AT—

NEW BRUNSWICK, N. J.

1879-'80.

Catalogue

OF THE

OFFICERS AND STUDENTS

OF

RUTGERS COLLEGE,

NEW BRUNSWICK, N. J.

1879-80.

Founded A. D. 1770.

NEW BRUNSWICK, N. J.:
TERHUNE & VAN ANGLEN'S PRESS, 31 ALBANY STREET.

1879.

Trustees.

EX-OFFICIO:

HIS EXCELLENCY, GEORGE B. McCLELLAN,.....ORANGE,
Governor of the State of New Jersey.

HON. MERCER BEASLEY, LL.D., ...TRENTON,
Chief Justice of the State of New Jersey.

HON. JOHN P. STOCKTON,.....TRENTON,
Attorney General of the State of New Jersey.

BY ELECTION:

Names.	*Residences.*	*Date of Election.*
REV. WM. H. CAMPBELL, D.D.,LL.D., *President of the College.*	New Brunswick,	Sept. 16, 1862
HON. A. B. HASBROUCK, LL.D.,*	Kingston, N.Y.,	July 17, 1837
REV. ABRAHAM MESSLER, D.D.,	Somerville,	July 22, 1845
REV. GUSTAVUS ABEEL, D.D.,	Newark,	July 22, 1845
REV. T. E. VERMILYE, D.D., LL.D.,	New York City,	July 24, 1849
HON. JOHN HOPPER,	Paterson,	July 22, 1851
HON. F. T. FRELINGHUYSEN, LL.D.,	Newark,	July 21, 1851
MAURICE E. VIELE, Esq.,	Albany, N.Y.,	July 27, 1853
HON. ROBERT H. PRUYN, LL.D.,	Albany, N.Y.,	July 27, 1853
REV. DAVID D. DEMAREST, D.D.,	New Brunswick,	April 13, 1858
HON. JOSEPH P. BRADLEY, LL.D.,	Washington, D.C.,	June 29, 1859
REV. FRANCIS M. KIP, D.D.,	Stapleton, S.I.,	Oct. 16, 1860
HENRY L. JANEWAY, Esq.,	New Brunswick,	April 8, 1862
JOHNSON LETSON, Esq.,	New Brunswick,	June 16, 1863
REV. GARRET C. SCHANCK,	Marlboro,	April 11, 1866
STAFFORD R. W. HEATH, Esq.,	Newark,	April 11, 1866
REV. TALBOT W. CHAMBERS, D.D.,	New York City,	June 17, 1868
REV. JOACHIM ELMENDORF, D.D.,	Poughkeepsie, N.Y.,	April 14, 1869

*Deceased Feb. 22, 1879.

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Names.	*Residences.*	*Date of Election.*
CORNELIUS ESSELSTEYN, Esq.,	Hudson, N.Y.,	April 14, 1869
Rev. PAUL D. VAN CLEEF, D.D.,	Jersey City,	April 14, 1869
JAMES W. SCHERMERHORN, Esq.,	New York City,	Feb. 7, 1871
WILLIAM C. FOWLER, Esq.,	Brooklyn, N.Y.,	April 13, 1871
SAMUEL SLOAN, Esq.,	New York City,	June 20, 1871
Hon. GEORGE C. LUDLOW,	New Brunswick,	June 17, 1873
Hon. WILLIAM A. NEWELL,	Allentown,	June 17, 1873
Rev. ISAAC S. HARTLEY, D.D.,	Utica, N.Y.,	June 17, 1873
Hon. THEODORE F. RANDOLPH,	Morristown,	March 31, 1874
S. O. VANDERPOEL, M.D., LL.D.,	Stapleton, S.I.,	June, 22, 1875
THEODORIC R. WESTBROOK, LL.D.,	Kingston, N.Y.,	Oct. 26, 1875
Rev. WILLIAM ORMISTON, D.D.,	New York City,	June 20, 1876
Rev. JOHN GASTON, D.D.,	Passaic,	June 20, 1876
HENRY W. BOOKSTAVER, Esq.,	New York City,	June 20, 1876
ROBERT F. BALLANTINE, Esq.,	Newark,	June 20, 1876
Hon. GEORGE H. SHARPE,	Kingston, N.Y.,	March 4, 1878
Rev. WM. RANKIN DURYEE, D.D.,	Jersey City,	March 5, 1878
Rev. WM. J. R. TAYLOR, D.D.,	Newark,	June 18, 1878
Rev. ABRAHAM R. VAN NEST, D.D.,	Philadelphia, Pa.,	Oct. 29, 1879
JOHN LEFFERTS, Esq.,	Flatbush, L.I.,	Oct. 29, 1879
WILLIAM CLARK, Esq.,	Newark,	Oct. 29, 1879

Rev. DAVID D. DEMAREST, D.D.,.....New Brunswick,
Secretary of the Board.

JOHN C. ELMENDORF, Esq.,.....New Brunswick,
Treasurer.

Office—39 Albany Street.

PETER THOMAS, *Janitor.*

Faculty.

REV. WILLIAM HENRY CAMPBELL, D.D., LL.D.,
(PRESIDENT.)
THEODORE FRELINGHUYSEN *Professor of Biblical Literature, Evidences of Christianity, and Moral Philosophy.*

GEORGE H. COOK, LL.D.,
(VICE PRESIDENT.)
Professor of Analytical Chemistry, Geology and Agriculture.

REV. DEWITT TEN BROECK REILEY, A.M.,
Professor of the Latin Language and Literature, and Rector of the Grammar School.

REV. T. SANDFORD DOOLITTLE, D.D.,
COLLEGIATE CHURCH *Professor of Rhetoric, Logic, and Mental Philosophy.*

REV. JACOB COOPER, D.D., D.C.L.,
Professor of the Greek Language and Literature.

JOHN CONOVER SMOCK, A.M.,
Professor of Mining and Metalurgy.

GEORGE W. ATHERTON, A.M.,
VOORHEES *Professor of History, Political Economy, and Constitutional Law; and Military Superintendent.*

REV. CARL MEYER, D.D.,
Professor of Modern Languages.

FRANCIS CUYLER VAN DYCK, A.M.,
Professor of Chemistry.

EDWARD A. BOWSER, M.S., C.E.,
Professor of Mathematics and Engineering.

ISAAC EDGAR HASBROUCK, A.M.,
Professor of Mathematics and Graphics.

GEORGE BENJAMIN MERRIMAN, A.M.,
Professor of Mathematics and Astronomy, and Instructor in Natural Philosophy.

PETER TOWNSEND AUSTEN, PH.D., F.C.S.,
Adjunct Professor of Analytical Chemistry.

FRANCIS AUGUSTUS WILBUR, B.S.,
Assistant in Analytical Chemistry.

GEORGE W. ATHERTON, A. M.,
Librarian.

ISAAC EDGAR HASBROUCK, A.M.,
Assistant Librarian.

The names of Professors are arranged according to seniority of appointment, with the exception of the President's.

Catalogue of Students

FOR THE YEAR BEGINNING SEPT. 20, 1879.

RESIDENT GRADUATES.

Names.	*Residences.*	*Rooms.*
JOHN EDWARD ELMENDORF,	New Brunswick,	39 Albany St.
HOWARD D. TERHUNE,	New Brunswick,	149 George St.

SENIOR CLASS.

CLASSICAL SECTION.

Names.	*Residences.*	*Rooms.*
CHARLES STUART AITKIN,	Trenton,	69 Albany St.
THOMAS WOODHOUSE BAKEWELL,	Pittsburg, Pa.,	95 Hamilton St.
HERBERT HENRY CAMERON,	Albany, N.Y.,	55 Albany St.
CHARLES FREEMAN CANTINE,	Saugerties, N.Y.,	79 George St.
EDWARD CLOSE DELEVAN, JR.,	New York City,	78 Paterson St.
NATHAN HENRY DEMAREST,	New York City,	49 Schureman St.
WILLIAM ALEXANDER DUMONT,	Bedminster,	61 Bayard St.
PIERRE ST. JOHN GILLESPY,	Saugerties, N.Y.,	57 Bayard St.
GILBERT D. B. HASBROUCK,	Port Ewen, N.Y.,	61 Bayard St.
WALTER D. HASBROUCK,	Orangeburg, N.Y.,	61 Bayard St.
CHARLES ARTHUR HORN,	Brooklyn, N.Y.,	48 Hertzog Hall.
EGBERT LEFEVRE,	Middlebush,	Middlebush.
FREDERICK WILKINSON OLCOTT,	Millstone,	Millstone.
EDMUND RAWSON PALMER,	New Brunswick,	College Ave.
CLARENCE MATHER PERLEE,	New York City,	6 Paterson St.
THOMAS M. FITZ RANDOLPH,	Morristown,	69 Albany St.

Names.	*Residences.*	*Rooms.*
MILLARD F. ROSS,	New Brunswick,	50 New St.
GEORGE WASHINGTON SCARLET,	South Branch,	49 Schureman St.
EDWIN FRANCIS SEE,	Tarrytown, N.Y.,	44 Hertzog Hall.
BEVIER HASBROUCK SLEIGHT,	Sleight's Burg, N.Y.,	75 Bayard St.
JOHN L. SUYDAM,	Three-Mile-Run,	Three-Mile-Run.
STEPHEN VEDDER TEN EYCK,	New Brunswick,	48 Bayard St.
WILLIAM VAN DOREN,	Middlebush,	Middlebush.
JOSEPH APPLETON VAN MATER,	Marlboro,	79 George St.
SHERMAN VAN NESS, JR.,	Hudson, N.Y.,	95 Hamilton St.
BENJAMIN MILLER VAN SYCKEL,	Newark,	Newark.
WILLIAM VAUGHAN,	Strong, Me.,	72 Paterson St.
NATHANIEL W. VOORHEES, JR.,	Clinton,	86 Bayard St.
FREDERICK WEIGEL,	New Brunswick,	214 Burnet St.
JOSEPH WOLFSON,	New Brunswick,	242 Burnet St.

SCIENTIFIC SECTION.

Names.	*Residences.*	*Rooms.*
FRANKLIN AVERY CHAPMAN,	Madison,	101 George St.
CHARLES MANNING FREEMAN,	Metuchen,	Metuchen.
WILLIAM DAVIS SCHOONMAKER,	Stone Ridge, N.Y.,	2 College Ave.
THEODORE VAN DEVENTER,†	New Brunswick,	84 Somerset St.
CHARLES STRONG VAN NUIS,	New Brunswick,	Voorhees Station.

JUNIOR CLASS.

CLASSICAL SECTION.

Names.	*Residences.*	*Rooms.*
THEODORE BURGES BOORAEM, JR.,	New Brunswick,	54 Bayard St.
JESSE WENDELL BROOKS,	Cheshire, Conn.,	61 Bayard St.
GARDNER HALE CAIN,	Harlingen,	78 Bayard St.
MARION TOWNSEND CONKLIN,	Kingston, N.Y.,	30 Hertzog Hall.

†Partial.

Names.	*Residences.*	*Rooms.*
JOSIAH ELMER CRANE,	Fair Oaks, N.Y.,	36 Lee Ave.
HENRY JOHN DE VRIES,	Sayville, L.I.,	22 Paterson St.
GEORGE FIELDER,	New Brunswick,	College Ave.
CORNELIUS I. HARING,	Nyack Turp'ke, N.Y.,	123 Geo. St.
RICHARD CHARLES HARRINGTON,	Newark,	Newark.
CHARLES NORTON IRONSIDE,	Covington, Ky.,	20½ Albany St.
MARTIN WYCKOFF LANE,	Neshanic,	78 Bayard St.
ROBERT LEFFERTS,	Flatbush, L.I.,	20½ Albany St.
CHARLES EDWARD LORD,	Metuchen,	Metuchen.
JOEL LOUCKS,	Palatine Bridge, N.Y.,	30 H. Hall.
WILLIAM MCNAIR,	Bedminster,	63 Bayard St.
HENRY DU BOIS MULFORD,	Hudson, N.Y.,	59 French St.
WILLIAM SCHMITZ, JR.,	New York, N.Y.,	28 Hertzog Hall.
OLIVER PARSELL SCHNEEWEISS,	New Brunswick,	126 George St.
CHESTER BOYDEN SCHOONMAKER,	Stone Ridge, N.Y.,	2 College Ave.
CHARLES BUCHANON SCOTT,	Holland, Mich.,	155 George St.
GEORGE HENRY STEPHENS,	North Branch,	Rail Road Ave.
LIVINGSTON LUDLOW TAYLOR,	Newark,	Newark.
IRVING STRONG UPSON,	Marion, Conn.,	44 Hertzog Hall.
J. RUSSELL VERBRYCKE,	New Brunswick,	20 Church St.
EDWARD BURNETT VOORHEES,	South Branch,	123 George St.
JAMES SYLVESTER WIGHT,	Jersey City,	78 Bayard St.
GARRET GARRETSON WYCKOFF,	Millstone,	96 George St.

SCIENTIFIC SECTION.

Names.	*Residences.*	*Rooms.*
JOHN BRUERE,	New Egypt,	73 Albany St.
THOMAS HENRY GRANT,	Red Bank,	6 Paterson St.
JOHN KINNAN HOW,†	Voorhees Station,	Voorhees Stat'n.
FREDERICK WILLIAM MALCOLM,	New York City,	69 Albany St.
JOHN FORSYTH MCWILLIAM,	East Millstone,	East Millstone.
ROBERT CECIL PLUME,	Jersey City,	92 Bayard St.

†Partial.

SOPHOMORE CLASS.

CLASSICAL SECTION.

Names.	*Residences.*	*Rooms.*
JOHN BARTLETT ALDEN,	Catskill, N.Y.,	Metuchen.
THEODORE AMERMAN BEEKMAN,	South Branch,	32 Hertzog Hall.
JACOB CHESTER CHAMBERLAIN,	Mudnapilly, India,	Sem'y Place.
WILLIAM ISAAC CHAMBERLAIN,	Mudnapilly, India,	Sem'y Place.
WILL. STOCKTON CRANMER,	Jersey City,	Hamilton Ave.
CHARLES LEAVITT EDGAR,	Griggstown,	74 Bayard St.
JOHN HAMILTON GILLESPIE,	Jersey City,	Jersey City.
ABRAHAM BRITTON HAVENS,†	Jersey City,	74 Bayard St.
JOSEPH HOVER,	New Brunswick,	47 Albany St.
HOWARD MELVILLE LANSING,	Brooklyn, N.Y.,	148 George St.
WILLIAM FRED. MIDDELEGGE,	Jersey City,	148 George St.
EDWIN OSCAR MOFFETT,	South Plainfield,	92 Bayard St.
JOHN MORRISON,	Fishkill-on-Hud'n,	N.Y., 126 H.H.
WALTER NEWELL,	New Brunswick,	146 George St.
JAMES AVERY NORRIS,	Shavertown, N.Y.,	9 Paterson St.
JAMES POWERS PHILIP,	Catskill, N.Y.,	131 George St.
NELSON DEWITT PUMYEA,	Three-Mile-Run,	Three-Mile-Run.
PHILIP WILSON PITCHER,	Poughkeepsie, N.Y.,	58 Pat'n St.
EDGAR F. RANDOLPH,	Morristown,	Albany St.
MYRON TRACY SCUDDER,	Up.-Red-Hook, N.Y.,	Geo.& Alb'y.
DANIEL WESLEY SKELLENGER,	Chester,	92 Bayard St.
RYNIER J. WORTENDYKE,	Jersey City,	Jersey City.

SCIENTIFIC SECTION.

Names.	*Residences.*	*Rooms.*
JAMES HOWARD AITKIN,†	Trenton,	Trenton.
OWEN BENJ. FRANKLIN ALLEN,	Allenwood,	94½ Albany St.
ANDREW KING BAKER,†	Dover,	92 Bayard St.
FREDERICK WAGONER BENNETT,	Cape May C. H.,	131 George St.
JOHN NEWTON BERNART,	Midvale,	96 George St.

† Partial.

Names.	*Residences.*	*Rooms.*
PHILIP HASBROUCK BEVIER,	Gardiner, N.Y.,	96 George St.
FRANK STRONG CURTIS,†	East New Brunswick,	East N. B.
NATHANIEL B. KLINK HOFFMAN,	Readington,	Rail Road Ave.
GEORGE HENRY JOHNSON,	New Brunswick,	8 George St.
SOLOMON LEFEVRE,	New Paltz, N.Y.,	58 Paterson St.
ANDREW J. MANNING, JR.,†	Plainfield,	Plainfield.
NEHEM. DUNHAM VANSYCKEL,	Bound Brook,	67 Church St.
WASHINGTON WILSON,†	Metuchen,	Metuchen.

FRESHMAN CLASS.

CLASSICAL SECTION.

Names.	*Residences.*	*Rooms.*
HENRY WARREN BEEBE,	New Brunswick,	117 Somerset St.
GEORGE B. MCCLELLAN BELL,	New Brunswick,	77 French St.
JOHN TALLMADGE BERGEN,	Flatlands, L.I.,	35 Hertzog Hall.
JOHN HENRY BRANDOW,	Coxsackie, N.Y.,	61 Bayard St.
GEORGE ZABRISKIE COLLIER,	New Brunswick,	71 Bayard St.
WILLIAM H. STEELE DEMAREST,	New Brunswick,	Seminary Place.
JOHN HANDLEY,	Old Bridge,	East New Brunswick.
FREDERICK PARSELL HILL,	East New Brunswick.	Raritan Av.
WILLIAM HENRY HOUGH,	Trenton,	4 Schuyler St.
JOHN LAUBENHEIMER,	Bergen Point,	9 Easton Ave.
GEORGE MUNN LILBURN,	Haverstraw, N.Y.,	8 Suydam St.
WILLIAM CHRISTIAN MILLER,	Albany, N.Y.,	69 Bayard St.
HARRY MORTIMER PETERS,	Newark,	44 Park Place.
JOHN LUDLOW SCHENCK,	Neshanic,	78 Bayard St.
JARED WATERBURY SCUDDER,	Brooklyn, N.Y.,	Geo. & Albany Sts.
ALFRED FORD SKINNER,	Belleville,	6 Paterson St.
CYRUS SMITH,	New Brunswick,	Redmond St.
THEODORE STRONG,	New Brunswick,	Hamilton Ave.
DUNCAN DUNBAR SUTPHEN,	Newark,	61 Bayard St.
HENRY JUDD WARD,	Middleville, N.Y.,	6 Paterson St.

† Partial.

SCIENTIFIC SECTION.

Names.	*Residences.*	*Rooms.*
Moses George Bierman,	Newark,	16 Church St.
Willard Bishop,	New Brunswick,	College Ave.
E. Phillips Brown,	Up.-Red-Hook, N.Y.,	Alb'y & Geo.
George Elton Jenkins,	Mine Hill,	73 Albany St.
James Mac Mullen,	New Brunswick,	Suydam St.
Thomas Doremus Van Syckle,	Newark,	990 Broad St.
William Cochran Ward,	Irvington,	61 Bayard St.
Edward Francis White,	Bergen Point,	Bergen Point.
George Osman Woods,†	Clifton, S.I.,	56 Church St.

SPECIAL STUDENTS IN CHEMISTRY.

FIRST YEAR.

Names.	*Residences.*	*Rooms.*
Charles Francis Boylan,	New Brunswick,	104 Bayard St.
George B. McChesney,	Hightstown,	73 Albany St.
Edward B. Dana, Jr.,	Metuchen,	Metuchen.
Charles H. Rogers,	New Brunswick,	25 Albany St.
Charles Strong Rusling,	Lawrenceville, Pa.,	201 Burnet St.
James Price Warrick,	Glassboro,	78 Paterson St.

SECOND YEAR.

Names.	*Residences.*	*Rooms.*
Jesse H. Beekman,	New Brunswick,	58 George St.
Theo. Frelinghuysen DeWitt,	New Brunswick,	Seminary Place.

SPECIAL STUDENT IN AGRICULTURE.

FIRST YEAR.

Name.	*Residence.*	*Room.*
William R. Welling,	Warwick, N.Y.,	Bayard & Schuy'r.

Recapitulation.

NEW JERSEY,	88
NEW YORK,	46
MAINE,	1
CONNECTICUT,	2
PENNSYLVANIA,	2
MICHIGAN,	1
KENTUCKY,	1
INDIA,	2
TOTAL,	143

SUMMARY.

RESIDENT GRADUATES,	2
CLASSICAL DEPARTMENT.	
SENIORS,	30
JUNIORS,	27
SOPHOMORES,	22
FRESHMEN,	20
SCIENTIFIC DEPARTMENT.	
SENIORS,	5
JUNIORS,	6
SOPHOMORES,	13
FRESHMEN,	9
SPECIAL STUDENTS IN CHEMISTRY.	
FIRST YEAR,	
SECOND YEAR,	2
SPECIAL STUDENT IN AGRICULTURE.	
FIRST YEAR,	1
TOTAL IN COLLEGE,	143

Calendar.

1879-80.

1879. JUNE 18, Wednesday: Commencement: Vacation.
" SEPTEMBER 23, Tuesday: First Session begins.
" SEPTEMBER 23, Tuesday: Examinations for admission.
" DECEMBER 24, Wednesday: First Session ends. Vacation.
1880. JANUARY 8, Thursday: Second Session begins.
" JANUARY 29, Day of Prayer for Colleges.
" FEBRUARY 23, Monday: Sophomore Exhibition.
" APRIL 7, Wednesday: Second Session ends. Vacation.
" APRIL 15, Thursday: Third Session begins.
" MAY 24, 25, Monday and Tuesday: Senior Examinations.
" JUNE 18, 19, Friday and Saturday: Examinations for admission.
" JUNE 20, Sunday: Baccalaureate Sermon by the President.
" JUNE 22, Tuesday: Meeting of Alumni: Exercises of the Literary Societies. Junior Exhibition in the Evening.
" JUNE 23, Wednesday: Commencement. Vacation.
" SEPTEMBER 21, Tuesday: First Session begins.
" SEPTEMBER 21, Tuesday: Examinations for admission.
" DECEMBER 22, Wednesday: First Session ends. Vacation.
1881. JANUARY 6, Thursday: Second Session begins.

Classical Department.

1. Conditions of Admission.

Every applicant for admission must submit to the President proper testimonials of a good moral character.

Examinations for admission to the College will be held on Friday and Saturday before Commencement, (June 18th and 19th,) beginning at 9 o'clock A. M., in the President's room. All who can do so are desired to present themselves on Friday. Applicants for admission may also be examined on Tuesday, September 21st, at the same hour and place.

Candidates for advanced classes must sustain a satisfactory examination upon the subjects previously studied by the class which they propose to enter, as well as those required for admission into the Freshman Class. Under this regulation students are admitted at any time during the Collegiate year.

Students who desire to pursue selected branches of study may do so, if properly prepared to pursue them with the regular classes. Special provision is made for such students in the Scientific Department.

The following, or a full equivalent, are the requirements for admission to the Freshman Class:

LATIN—Andrews and Stoddard's or Harkness' Grammar; Fischer's Manual of Latin Grammar and Composition—First Part; Cæsar's Gallic War; Six Books of the Æneid; Cicero's Orations against Catiline, on the Manilian Law, for the Poet Archias, and for King Deiotarus.

GREEK.—Hadley's Greek Grammar, including Prosody; Xenophon's Anabasis—three books; Arnold's First Greek Book, entire; Three books of Homer's Iliad, and twenty sections of Arnold's Greek Prose Composition, or its equivalent.

ENGLISH AND MATHEMATICS.—Arithmetic complete, including the Metric system; Algebra, to Quadratic Equations; Plane Geometry —three books, including Exercises; Ancient and Modern Geography; English Grammar and Spelling; History of the United States.

GERMAN.—Ahn's Grammar, (Fischer's Edition), or its equivalent. Any condition in this subject must be made up before the close of the Sophomore year.

2. *Suggestions in regard to Preparation.*

LATIN.—In preparing in Latin, the student should give more attention to the prose than the poetry of the language.

Besides the common rules he should be thoroughly drilled in the use of the moods and tenses, the consecution of tenses, the gerundive construction, etc., and should be taught to analyze the sentence into its different parts.

Fischer's Elements of Latin Grammar and Reader should be used in preparation as the best book to give thorough instruction in the elements of Latin.

LATIN COMPOSITION.—It is recommended that the student should begin the study of the language with Fischer's Manual, and that he should have as much exercise in writing Latin as possible.

PRONUNCIATION.—The system followed is the Roman, as given in Fischer's Manual. For correctness of pronunciation, the rules of prosody are necessary to those who have not been thoroughly accustomed to the correct sound of the Latin words.

GREEK.—The examination will be: I. In Hadley's Grammar. The applicant must be thoroughly familiar with the leading principles of the whole Grammar, including accent and quantity.

II. In Arnold's First Greek Book. The whole of this is required.

III. In pronunciation the accent must be followed in prose; but in poetry, regard will be had only to quantity.

While Arnold's First Greek Book, Xenophon's Anabasis (three books), and Homer's Iliad (three books), are the basis of examination, other authors will be taken instead, provided the pupil can pass upon a *full* equivalent.

MATHEMATICS.—Attention is especially called to the Metric System of Weights and Measures, a practical knowledge of which is indispensable, since it is *used* in the class room, and to the subject of Radicals, in which a deficiency of preparation is most frequently apparent.

In preparing in Mathematics the student should not only have a thorough knowledge of the subjects required, *but he should acquire a proficiency and readiness in the application of the principles, and to that end the solution of numerous and varied examples is earnestly recom-*

mended. It is also desirable to cultivate habits of neatness and order in the presentation of work on the blackboard.

ENGLISH GRAMMAR AND GEOGRAPHY.—A good knowledge of *English Grammar* in all its parts is required for admission. This is presupposed in the studies that follow. The candidate is also examined in spelling, reading and punctuation. Ancient Geography should be studied in connection with the Classical Authors; and Modern Geography, including both Descriptive and Physical, is an essential requisite.

HISTORY.—Candidates for admission are examined in the History of the United States, with special reference to the colonization of the several States, the forms of government which existed previous to the Revolution, the causes and principal events of the Revolution, the period of the Confederation, the establishment of the Federal Constitution, with the general history subsequent to that event.

Scavey's Goodrich's History of the United States is considered the best book to use in preparation; and it will be taken as the standard for examination. This work is also recommended to the Public Schools of New Jersey by the State Superintendent of Public Instruction. A full equivalent, however, will be accepted; more regard being paid to the quality of the preparation than to the particular book used.

3. *Course of Instruction.*

The COURSE OF INSTRUCTION occupies four years, with three terms or sessions in each year.

The following is a scheme of the studies of the course. This scheme is not always strictly followed, either in the order of studies or the use of the particular text-books named; but it furnishes an exhibit of the amount of work required of students during the four years, and may indicate to candidates for advanced standing the equivalents which will be accepted from them:—

FRESHMAN CLASS

Exercises during the year in Composition and Declamation.
Bible Class Sabbath morning.

FIRST TERM.

1. *Latin*—Livy; Roman History. 2. *Greek*—Homer's Odyssey (three books); Wilkins' Elementary Greek Exercises. 3. *Mathematics*—Wentworth's Geometry, from Book IV. 4. *Natural History*—Dalton's Physiology; Lectures. 5. *Rhetoric*—D. J. Hill; Lectures.

SECOND TERM.

1. *Latin*—Livy; Composition; Roman History. 2. *Greek*—Lucian's Timon, and one Phillipic of Demosthenes; Wilkins' Elementary Greek Exercises. 3. *Mathematics*—Wentworth's Geometry completed; Loomis' Algebra from Quadratic Equations. 4. *Natural History*—Zoology. 5. *English Literature*—Hadley's History of the English Language. 6. *Elocution*—Lectures.

THIRD TERM.

1. *Latin*—Horace; Composition. 2. *Greek*—Thucydides, two books; Wilkins' Elementary Greek Exercises completed. 3. *Mathematics*—Loomis' Algebra completed. 4. *Natural History*—Gray's Botany. 5. *English Literature*—Lounsbury's Edition of Chaucer's Parlament of Foules; Morley's Manual of English Literature.

SOPHOMORE CLASS.

Exercises during the year in Composition and Declamation.
Bible Class Sabbath morning.

FIRST TERM.

1. *Latin*—DeOfficiis; Latin Composition; Mythology. 2. *Greek*—Sophocles' Electra; Sidgwick's Greek Prose Composition; Lectures on Greek Literature. 3. *Mathematics*—Olney's Trigonometry, Plane and Spherical, with application to Surveying. 4. *Modern History*—Freeman's Outlines, with Written Essays.

SECOND TERM.

1. *Latin*—Tacitus; Plautus; Antiquities; Composition. 2. *Greek*—Demosthenes on the Crown, Tyler or D'Ooge; Sidgwick's Greek Prose Composition; Lectures on Numismatics, with Illustrations. 3. *Mathematics*—Trigonometry completed, Analytical (or general) Geometry, Olney. 4. *Modern History*—Freeman's Outlines with Written Essays.

THIRD TERM.

1. *Latin*—Horace; Juvenal; Composition. 2 *Greek*—Aristophanes' Birds; Sidgwick's Greek Prose Composition completed; Greek Antiquities; Lectures on the History and Deciphering of Manuscripts, with Illustrations. 3. *Mathematics*—Analytical Geometry completed. 4. *Constitutional History of England*—Creasy.

JUNIOR CLASS.

Exercises during the year in Composition and Original Declamation. Bible Class Sabbath morning.

FIRST TERM.

1. *Natural Philosophy*—Deschanel. 2. *Chemistry*—Lectures on Inorganic Chemistry. 3. *Mental Philosophy*—Porter's Elements of Intellectual Philosophy and Lectures. 4. *German*. 5. *Elective Studies*—One of which is to be pursued. 1. *Latin*—Quintilian. 2. *Mathematics*—Differential and Integral Calculus, Olney. 3. *Analytical Chemistry*—Laboratory Practice and Lectures on the Theory of Analysis.

SECOND TERM.

1. *Natural Philosophy*—Deschanel. 2. *Chemistry*—Lectures on Inorganic Chemistry and Mineralogy. 3. *Mental Philosophy*—Porter's Elements of Intellectual Philosophy and Lectures. *Logic*—Thompson's Outlines of the Laws of Thought. 4. *German*. 5. *Elective Studies*—One of which is to be pursued. 1. *Greek*—Plato's Phædo, Wagner's Edition; Wilkins' Manual of Composition. 2. *Mathematics*—Calculus completed. 3. *Analytical Chemistry*—Laboratory Practice and Lectures on the Theory of Analysis.

THIRD TERM.

1. *Astronomy*. 2. *Chemistry*—Lectures. 3. *History of Civilisation*—Guizot. 4. *German*. 5. *Elective Studies*—One of which is be pursued. 1. *Latin*. 2. *Mechanics*—Wood's Analytical Mechanics. 3. *Analytical Chemistry*—Laboratory Practice and Lectures on the Theory of Analysis.

SENIOR CLASS.

Exercises during the year in Composition and Original Declamation. Bible Class Sabbath morning.

FIRST TERM.

1. *Chemistry*—Lectures on Organic Chemistry and Chemical Physics. 2. *Political Economy*—Bowen, and Perry; Lectures. 3. *Moral Philosophy*—Calderwood's Handbook; Lectures. 4. *Elective Studies*—One of which is to be pursued. 1. *Greek*—Buchholz' Anthology; Trendelenberg's Elementa Logices Aristoteleæ; Wilkins' Manual of Composition. 2. *Astronomy*—With use of Instruments. 3. *Modern Languages*—German. 4. *Analytical Chemistry*—Laboratory Practice and Lectures on the Theory of Analysis. 5. *Hebrew*—Extra.

SECOND TERM.

1. *Chemistry*—Lectures on Organic Chemistry and Chemical Physics. 2. *International Law*—Woolsey; Lectures. 3. *Constitution of the United States*—Pomeroy. 4. *Moral Philosophy*—Butler's Analogy. 5. *Elective Studies*—One of which is to be pursued. 1. *Latin*. 2. *Geodesy*—Lectures. 3. *Modern Languages*—German. 4. *Analytical Chemistry*—Laboratory Practice, and Lectures on the Theory of Analysis. 5. *Hebrew*—Extra.

THIRD TERM.

1. *Geology*—Lectures. 2. *Architecture*—Lectures. 3. *Moral Philosophy*—Butler's Analogy. 4. *Elective Studies*—One of which is to be pursued. 1. *Greek*—Porphyry's Isagoge and Aristotle's Categoriæ, Bekker's Edition. Lectures on the Organon. 2. *Modern Languages*—German. 3. *Analytical Chemistry*—Laboratory Practice, and Lectures on the Theory of Analysis. 4. *Hebrew*—Extra.

4. *Remarks on the Course of Study.*

In the above schedule all the Studies up to the close of the Sophomore year are obligatory, and are intended to be of such a character as will be equally desirable whatever subsequent profession or career is chosen. During the Junior and Senior years some subjects are required of all regular students, while several others are made elective, one at least of which must be pursued.

MORAL PHILOSOPHY AND THE EVIDENCES OF CHRISTIANITY.

Moral Philosophy is taught during the Senior year by the study of text-books, by comments and criticisms, and by lectures. A course of Biblical Instruction continues throughout the entire four years. A Sabbath morning Bible lesson, which all the students attend, is devoted to the critical study of the Scriptures—especially the Greek New Testament. Hebrew is taught as an extra study during the Senior year.

LANGUAGES.

Latin—Prose authors of the Classical period are read first, and the thorough grammatical drill is given upon the language in its most correct form. Next a Prose Author of the post-classical period is read. Then the poets, at least one in each literary period, are taken up in their chronological order. The course is concluded with a rhetorical and a philosophical treatise. Exercises in Latin Composition are continually required of the student.

Greek—The Classical Greek authors are read during the entire Freshman and Sophomore years, one term of the Junior, and two terms of the Senior year. The course is intended to embrace at least one complete treatise from a leading author belonging to each period from Homer to Lucian. And while the amount read is distinctly indicated by the Catalogue, it is the purpose to vary the authors, or portions from the same author, every year. Term examinations are entirely in writing. They are from printed slips, different for each pupil, containing the passages for translation, with accompanying questions.

Promising students are encouraged to take special courses of study, in addition to the regular class work; and private instruction, supplemented by an efficient Library, is constantly given without charge. Assistance is also offered in Chaldee, Arabic and Sanskrit. The following books of reference are recommended; Smith's Classical Dictionaries, 6 vols; Jelf's Greek Grammar; Becker's Charicles; Liddell and Scott's Lexicon, 6th Oxford Edition.

English Language and Literature.—In addition to Hadley's History of the English Language, Lounsbury's Edition of Chaucer's Parlament of Foules, and Morley's English Literature, used as text-books in Freshman year, conversational lectures are given upon the most distinguished authors and their chief works. Special pains is taken in directing the student to a carefully selected Course of Reading, and inspiring him to cultivate a critical literary taste.

French and German are studied during the Junior and Senior years, and while the correct use and pronunciation of the spoken languages are taught, special stress is laid upon the ability to read with fluency the standard authors. The Seniors have frequent practice in German conversational exercises.

Hebrew.—This language is taught as an extra study during the Senior year to those who desire it.

MATHEMATICS, NATURAL PHILOSOPHY AND ASTRONOMY.

The required studies in Mathematics include Geometry with problems and exercises in Geometrical invention. Algebra, Plane and Spherical Trigonometry, with application to problems in Surveying and Astronomy, and Analytical Geometry. The last embraces the construction of equations and the geometrical interpretation of their roots real and imaginary, the production of equations from plane loci, and the properties of Conic Sections. These studies are pursued during the first two years of the course.

Those who wish to become acquainted with the more elegant and productive methods of Mathematical investigation have an opportunity to do so by electing in the Junior year the study of the Calculus and its applications. This branch considers quantity in a state of change, and shows the nature and use of infinitesimals in investigating the relations of quantities.

Care is taken throughout that every principle receives a rigorous demonstration and that applications are made of it as far as practicable. No principle is thoroughly learned by the student until he can apply it.

Natural Philosophy and Astronomy are studied through the Junior year by both the Classical and Scientific Sections. These studies are accompanied with frequent Lectures and are amply illustrated by the use of an extensive supply of apparatus and instruments.

The Daniel S. Schanck Observatory of Rutgers College is supplied with a 6½ inch Equatorial Telescope, a Transit circle, Sidereal clock, and other instruments for astronomical work.

The study of Practical Astronomy with the use of the instruments of the Observatory is optional in the Senior year.

CHEMISTRY AND NATURAL HISTORY.

The course in this department begins with the Freshman year, in which the leading subjects of Natural History are taught. Subsequently the instruction is by lectures, and covers the ground of Chemistry, Chemical Physics, Technology and Geology. The instruction is constantly accompanied by experiments and illustrations. And the extensive collections of minerals, fossils, geological specimens, shells, and other objects of Natural History are arranged for study in the Museum of Geological Hall, and the rooms are opened at stated times.

In the Junior and Senior years students may elect a course in Analytical Chemistry with Laboratory Practice and Lectures. The experimental studies in this department have proved remarkably attractive and profitable to those intending to devote themselves to Law or Medicine, or to business pursuits.

During the first term of the Junior year Blowpipe Analysis is taught. The students after learning the necessary manipulations for blowing glass, repeat the experiments in Nason and Chandler's Blowpipe Analysis. When they have become conversant with the various reactions, they proceed to actual analysis, or detection of substances by the blowpipe. Commencing with substances containing

two or three elements, they are in a short time able to analyze complex compounds. Toward the end of the course, lectures and recitations are held.

At the examination, the student is given substances to analyze, and his standing is determined by the correctness of his analyses.

After analyzing thirty to forty substances by the blowpipe, the student passes into the larger Laboratory, where he begins his studies in Qualitative Analysis. Here in a similiar manner he learns the reactions, makes the tests, and proceeds rapidly from analysis of simple substances to the most complex. The theory of analysis is minutely explained in the lectures on the subject. Quantitative Analysis now follows. The student having learned the means of detecting the constituents of a substance, proceeds to the determination of their *amount*. He first analyzes pure salts of known composition, so that his results may be compared with the theoretical percentages. Having obtained a sufficient accuracy in his work, he analyzes substances of unknown composition as minerals, metals, ores, waters, urines, poisons, fertilizers, coals, etc. Having thus become thoroughly acquainted with the theory and practice of analytical chemistry, the student undertakes original experimental investigations in the various branches of pure and applied chemistry.

RHETORIC AND METAPHYSICS.

Elocution.—During the Freshman year lectures are delivered on the general principles of Elocution, and a practical application of these principles is made by appropriate exercises in Declamation, in which the members of the class are carefully drilled. In addition to this there are exercises in Oratory by all the students, both in the class-room and in the College Chapel. The Freshman and Sophomore classes use selected pieces, and the Juniors and Seniors are required to deliver original orations.

In the department of Rhetoric begun during the Freshman year an effort is made to teach the principles of Composition, not as laid down in mechanical rules, but as springing from psychological laws and relations. Ideas presented in accordance with various mental requirements and influences are shown to contain the true philosophy of rational and effective discourse. And illustrative references to the Masterpieces of Oratory, and to other forms of the best English Classical Literature are freely given. Essays are required throughout the entire course.

Mental Philosophy—Porter's Elements of Intellectual Philosophy is employed as a text-book during the first term and a part of

the second term of the Junior year. The characteristic doctrines of the Distinctive Schools in Ancient and Modern Philosophy are presented in a course of Lectures upon the representative thinkers in these schools. Much attention is paid to the most important Philosophical and Metaphysical questions at issue among living speculators. And the results of recent critical discussions together with comments are interspersed with the daily recitations. The student is urged to become familiar with some of the works of Plato translated by Jowett, of Locke, Berkley, Reid, Dugald Stewart, Thomas Brown, Hamilton, Coleridge, J. S. Mill, Herbert Spencer; and with the summaries of the systems of Kant, Fichte, Shelling, Hegel, and of others found in Ueberweg's History of Philosophy.

LOGIC is taught by a text-book, but special care is taken to enforce a practical application of logical formulas in the resolution of arguments, and the detection of sophistries. To this end illustrative examples are drawn from different authors and much oral instruction is given.

HISTORY, POLITICAL ECONOMY AND CONSTITUTIONAL LAW.

The scheme of studies in this department includes an outline sketch of Modern History, beginning with the downfall of the Roman Empire and tracing the formation and growth of modern states; a view of the philosophy of history as given by Guizot: and a study of the leading principles of Political Economy, Constitutional Law (with special reference to the Constitutions of Great Britain and the United States) and International Law. Instruction is given by text-books, lectures and conversational discussions. The following among others, are recommended to students as books of reference: Hallam, and Stubbs, on the English Constitution; the Federalist, Story, Kent, Jameson, Curtis, and Von Holst, on the Constitution of the United States; Kent, Woolsey, Wheaton, and Phillimore, on International Law; Adam Smith (Rogers' edition), Mill, Fawcett, Cairnes, and Carey, on Political Economy. These studies begin in the Sophomore year and are continued during portions of the two following years.

Scientific Department.

RUTGERS SCIENTIFIC SCHOOL.

BY ACT OF THE LEGISLATURE CONSTITUTED THE STATE COLLEGE FOR AGRICULTURE AND THE MECHANIC ARTS.

BOARD OF VISITORS.

(APPOINTED BY THE GOVERNOR.)

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GEORGE H. COOK, *Secretary.*

1. *Conditions of Admission.*

Every applicant for admission must be sixteen years of age and must submit to the President proper testimonials of a good moral character. If an applicant for a State Scholarship, he must also present to the President a certificate of appointment from the County Superintendent.

Examinations for admission will be held on the same days as for the Classical Department, viz.: on the Friday and Saturday preceding Commencement, June 18th and 19th, beginning at 9 o'clock A. M., in the President's room. Applicants for admission may also be examined on Tuesday, September 23d, at the same hour and place.

Students may enter an advanced class either at the beginning of the College year or at other times, on condition that they sustain a satisfactory examination both on the preliminary studies and on those already passed over by the class which they propose to enter.

Provision is made for such students as wish to devote themselves to special subjects, if they are prepared to go on profitably with the regular classes in those subjects.

The following are the subjects on which those desiring to enter the Freshman class of the Scientific Department are examined. As they are all such as can be acquired in our best common schools, it is insisted that the preparation in them shall be thorough and complete.

1. Arithmetic complete, including the Metric system. 2. Algebra, to Series. 3. Plane Geometry. The *whole* of Plane Geometry will be required. 4. English Grammar—including spelling. 5. Descriptive Geography. 6. Physical Geography. 7. History of the United States.

In preparing the student for this course, it is recommended that he be drilled thoroughly in Arithmetic, as a clear understanding of its simple elementary, and practical principles is essential to a good Mathematician. His preparation in Algebra to Series should also be as complete. In addition to understanding the PRINCIPLES of the science he must fix them in his memory, and learn their bearing and utility, and for this reason he must pay great attention to the solution of practical examples. What is needed is ability to solve ordinary examples with facility and explain them thoroughly.

Attention is specially called to the Metric System of Weights and Measures, a practical knowledge of which is indispensable, since it is *used* in the class-room.

2. *Courses of Study.*

Four distinct courses of study are included in the Schedule which follows:

I. A COURSE IN CIVIL ENGINEERING AND MECHANICS.
II. A COURSE IN CHEMISTRY AND AGRICULTURE.
III. A SPECIAL COURSE IN CHEMISTRY.
IV. A SPECIAL COURSE IN AGRICULTURE.

During the first and second years the studies of the two full courses are the same, and are designed to furnish a suitable introduction to the pursuit of the higher branches in either.

During the last two years the subjects of Higher Mathematics, Mechanics and Engineering in the Engineering course are replaced by Analytical Chemistry, practice in the Laboratory, and Agriculture, in the other. The remaining subjects are pursued by the students of both courses together.

The course of study for the first two years in this Department is arranged so as to be complete in itself. It is especially designed to meet the wants of those who cannot take the entire four years' course, but who desire to fit themselves as Land Surveyors. Students leaving at this period of the course, receive from the Faculty a certificate of their attainments.

Students in this Department have daily practice in Draughting, with exercises and problems in Geometrical Constructions, in Descriptive Geometry, Topographical, Mechanical and Architectural Drawing, and in Graphical Statics. Several students who had acquired sufficient skill obtained positions as draughtsmen in various offices in the City during their course.

SPECIAL STUDENTS are received, and allowed to take any part of the above course, provided their previous education is sufficient; and particular provision is made for them, especially in the Laboratory, in Mathematics, Surveying and Draughting.

THE SPECIAL COURSES in Chemistry and Agriculture occupy two years. The Laboratory is open from 9 A. M. until 5 P. M.

Students are instructed in Blowpipe Analysis; Determinative Mineralogy; Analysis of Ores, Minerals, Coals, Waters, Technological Products, etc.; Assaying; Analysis of Soils, Fertilizers, Agricultural Products and Foods; Volumetric Analysis of Gases; Detection of Poisons; Analysis of Urine and Animal Products and Microscopical examinations. The course of study depends to some extent upon the student's future pursuit in life.

MILITARY TACTICS.—In accordance with the requirements of the Law, provision is made in this Department for the study of Military Tactics.

SPECIAL PROVISION IS ALSO MADE FOR STUDENTS WHO DESIRE, AFTER COMPLETING THE REGULAR COURSE OF STUDY, TO TAKE POST-GRADUATE STUDIES.

In connection with the instruction in Agriculture in this Department, the Trustees maintain an extensive model farm, designed to illustrate the principles of agriculture, and also to test by experiment the value of different systems. It is under the charge of the Professor of Agriculture, and *every Wednesday* during term time will be devoted to giving upon the farm explanations of the experiments and their results, to the students in agriculture, as well as to any farmers who may desire to avail themselves of this privilege.

3. Organization.

This department of the College has been designated by the Legislature of New Jersey, in accordance with the law of Congress:

THE STATE COLLEGE FOR THE BENEFIT OF AGRICULTURE AND THE MECHANIC ARTS.

Under this law, a certain number of students from the State of New Jersey are received into this department of the College, and educated free of expense for tuition. The law also provides for the appointment by the Governor of a Board of Visitors, two from each Congressional District, who possess general powers of supervision and control. The State pupils are admitted on the recommendation of the Superintendent of Schools in each county. They are distributed among the counties in proportion to their population as follows:

STATE SCHOLARSHIPS.

ATLANTIC,	1	MIDDLESEX,	2
BERGEN,	1	MONMOUTH,	2
BURLINGTON,	3	MORRIS,	2
CAMDEN,	2	OCEAN,	1
CAPE MAY,	1	PASSAIC,	2
CUMBERLAND,	1	SALEM,	1
ESSEX,	6	SOMERSET,	1
GLOUCESTER,	1	SUSSEX,	1
HUDSON,	6	UNION,	2
HUNTERDON,	1	WARREN,	1
MERCER,	2		
			40

COURSES OF STUDY.

FRESHMAN YEAR.

Exercises during the year in Composition and Declamation.
Bible Class Sabbath morning.

FIRST TERM.

1. ***French.*** 2. ***Mathematics***—Loomis' Algebra, from Series. 3. ***Natural History***—Dalton's Physiology; Lectures. 4. ***Rhetoric***—D. J. Hill; Lectures. 5. ***Draughting***—Practical Geometry, plane.

SECOND TERM.

1. ***French.*** 2. ***Mathematics***—Loomis' Geometry, from Book IV. 3. ***Natural History***—Zoology; Lectures. 4. ***Elocution***—Lectures. 5. ***English Literature***—Hadley's History of the English Language; Morley's English Literature. 6. ***Draughting***—Coloring, Topographical Signs, &c.

THIRD TERM.

1. ***French.*** 2. ***Mathematics***—Loomis' Trigonometry, Plane and Spherical. 3. ***Natural History***—Gray's Botany; Lectures. 4. ***English Literature***—Morley's English Literature, and Lounsbury's Edition of Chaucer's Parlament of Foules; Lectures. 5. ***Draughting***—Mapping, with Sections, &c.

SOPHOMORE YEAR.

Exercises during the year in Composition and Declamation.
Bible Class Sabbath morning.

FIRST TERM.

1. ***Surveying***—Murray's Manual; Field Exercises and Mapping. 2. ***Descriptive Geometry***—Church. 3. ***Chemistry***—Lectures. 4. ***Mental Philosophy***—Porter's Elements of Intellectual Philosophy. 5. ***History***—Freeman's Outlines. 6. ***Draughting***—Practical Geometry, solid.

SECOND TERM.

1. ***Descriptive Geometry***—Church; Construction of Problems; Navigation and Railroad Curves. 2. ***Chemistry***—Lectures. 3. ***Mental Philosophy***—Porter's Elements of Intellectual Philosophy. 4. ***History***—Freeman's Outlines. 5. ***Draughting***—Intersection of Surfaces, &c.

THIRD TERM.

1. ***Leveling and Railroad Curves***—Henck's Field Book; Field Practice, and Plotting. 2. ***Shades, Shadows and Perspective***—Church; Construction of Problems. 3. ***Chemistry***—Lectures. 4. ***Mental Philosophy***—Porter's Elements of Intellectual Philosophy. 5. ***History***—Creasy's Constitutional History of England. 6. ***Draughting***—Linear Perspective, &c.

JUNIOR YEAR.

COURSE IN CIVIL ENGINEERING AND MECHANICS.

Exercises during the year in Composition and Original Declamation. Bible Class Sabbath morning.

FIRST TERM.

1. *German.* 2. *Analytical Geometry*- Olney. 3. *Natural Philosophy*—Deschanel. 4. *History of Civilization*---Guizot. 5. *Constitutional History of the United States*—Text-book (Andrews), and Lectures. 6. *Draughting*—Lettering, &c.

SECOND TERM.

1. *German.* 2. *Analytical Geometry, completed; Differential and Integral Calculus*—Olney. 3. *Natural Philosophy*—Deschanel. 4. *Political Economy*—Bowen and Perry. 5. *Constitutional History of the United States*—Text-book (Andrews), and Lectures. 6. *Draughting*—Shading, &c.

THIRD TERM.

1. *German.* 2. *Calculus completed.* 3. *Astronomy.* 4. *International Law*—Woolsey. 5. *Draughting*—Constructions.

JUNIOR YEAR.

COURSE IN CHEMISTRY AND AGRICULTURE.

Exercises during the year in Composition and Original Declamation. Bible Class Sabbath morning.

FIRST TERM.

1. *German.* 2. *Analytical Chemistry*—Text-book, with Laboratory Practice and Lectures on the Theory of Analysis. 3. *Agriculture*—Lectures at the Farm. 4. *Natural Philosophy*—Deschanel. 5. *History of Civilization*—Guizot. 6. *Constitutional History of the United States*—Text-book (Andrews), and Lectures. 7. *Draughting*—Lettering, &c.

SECOND TERM.

1. *German.* 2. *Analytical Chemistry*—Text-book, with Laboratory Practice and Lectures on the Theory of Analysis. 3. *Agriculture*—Lectures. 4. *Natural Philosophy*—Deschanel. 5. *Political Economy*—Bowen, and Perry. 6. *Constitutional History of the United States*—Text-book (Andrews), and Lectures. 7. *Draughting*—Shading, &c.

THIRD TERM.

1. *German.* 2. *Analytical Chemistry*—Text-book, with Laboratory Practice and Lectures on the Theory of Analysis. 3. *Agriculture*—Vegetable Physiology. 4. *International Law*—Woolsey. 5. *Draughting*—Constructions. 6. *Mineralogy.*

Senior Year

Course in Civil Engineering and Mechanics.

Exercises during the year in Composition and Original Declamation. Bible Class Sabbath morning.

FIRST TERM.

1. *Mechanics*—Tate, or Wood. 2. *Engineering*—Mahan. 3. *Chemistry*—Lectures on Organic Chemistry and Chemical Physics. 4. *Moral Philosophy*—Calderwood's Handbook. 5. *Draughting*. Machinery and Architecture.

SECOND TERM.

1. *Engineering*—Mahan. 2. *Mechanics*—Tate, or Wood, Bridge Building, Wood; Intermediate Analysis. 3. *Chemistry*—Lectures on Organic Chemistry and Chemical Physics. 4. *Moral Philosophy*—Butler's Analogy. 5. *Draughting*—Engineering.

THIRD TERM.

1. *Engineering*—Bridge Building and Railway Practice; Geodesy. 2. *Geology*—Lectures. 3. *Moral Philosophy*—Butler's Analogy. 4. *Draughting*—Thesis.

Senior Year.

Course in Chemistry and Agriculture.

Exercises during the year in Composition and Original Declamation. Bible Class Sabbath morning.

FIRST TERM.

1. *Mining and Metallurgy*. 2. *Chemistry and Principles of Agriculture*—Lectures. 3. *Laboratory Practice* and Lectures on the Theory of Analysis. 4. *Moral Philosophy*—Calderwood's Handbook. 5. *Draughting*.

SECOND TERM.

1. *Agriculture*—Its Methods and Products. 2. *Chemistry*—Lectures on Organic Chemistry and Chemical Physics. 3. *Laboratory Practice* and Lectures on the Theory of Analysis. 4. *Moral Philosophy*—Butler's Analogy. 5. *Draughting*.

THIRD TERM.

1. *Agriculture*—Animal Physiology; Care and Management of Domestic Animals. 2. *Geology*—Lectures. 3. *Moral Philosophy*—Butler's Analogy. 4. *Draughting*. 5. *Laboratory Practice* and Lectures on the Theory of Analysis. 6. *Thesis*.

SPECIAL COURSE IN CHEMISTRY.

FIRST YEAR.

FIRST TERM.—1. *Elements of Chemistry*—Text-book and Lectures. 2. *Blowpipe Analysis.* 3. Thesis.

SECOND TERM.—1. *Physics and Chemistry*—Text book and Lectures. 2. *Chemical Analysis*—Qualitative, Practice and Theory. 3. Thesis.

THIRD TERM.—1. *Chemical Analysis*—Qualitative and Quantitative. 2. Lectures on the Theory of Analysis. 3. *Vegetable Physiology.* 4. *Elements of Mineralogy.* 5. Thesis.

Journal of Travel and Observation.

SECOND YEAR.

FIRST TERM.—1. *Chemical Analysis*—Analysis of Minerals, Ores, &c. 2. *Mineralogy*—Determinative. 3. Thesis.

SECOND TERM.—1. *Chemical Physics*—Heat, Electricity, Magnetism, Galvanism and Electro-Magnetism—Text-book and Lectures. 2. *Analysis of Fertilizers and Chemical Products.* 3. Thesis.

THIRD TERM.—1. *Lectures on Geology.* 2. *Chemical Analysis*—Experimental Investigations. 3. Dissertation.

SPECIAL COURSE IN AGRICULTURE.

FIRST YEAR.

FIRST TERM.—1.—Algebra. 2. Geometrical Problems. 3. Inorganic Chemistry. 4. Physiology and Zoology.

SECOND TERM.—1. Geometry. 2. Coloring and Topographical Drawing. 3. Analytical Chemistry. 4. Mineralogy. 5. Book-Keeping.

THIRD TERM.—1. Trigonometry. 2. Mapping. 3. Analytical Chemistry. 4. Botany. 5. Farm Accounts.

SECOND YEAR.

FIRST TERM.—1. Surveying. 2. Projections. 3. Natural Philosophy. 4. Study of Domestic Animals. 5. Systematic Agriculture.

SECOND TERM.—1. Navigation and Nautical Astronomy. 2. Architectural Drawing. 3. Physics. 4. Geology. 5. How Crops Grow.

THIRD TERM.—1. Leveling and Road Making. 2. Machine Drawing. 3. Meteorology. 4. Botany. 5. How Crops Feed.

Composition and Declamation throughout the whole course.

The hours of lectures or recitations are four each day, besides work in the Chemical Laboratory.

Students who pass their regular examinations in the above subjects, will, at the close of their course, receive certificates of their attainments. And at the end of two or more years further, if they shall have pursued practical agriculture on a farm, and shall then pass satisfactory examinations in prescribed subjects on Agricultural principles and practice before a Board of Examiners of the Scientific School, they shall receive Diplomas in Agriculture.

Examinations.

The classes in both departments are examined at the close of each term. The examinations are partly oral and partly written, and have an important bearing upon the standing of the student in his class.

At the end of the first and third terms, the examinations of the classes of the Scientific Section are held in the presence of the Board of Visitors, who then make their semi-annual visits to the institution.

At the end of the third term, each member of the Graduating Class of the Scientific Section is required to present a thesis on some scientific subject, a copy of which is to be written out upon paper suitable for binding, and deposited in the College Library.

The final examination of the Graduating Classes is held four weeks before Commencement, from which time they are subject only to such duties as are required for their preparation for Commencement.

Graduation.

To all members of the Graduating Class of the Classical Department, in full and regular standing, the Trustees grant diplomas conferring the Academic degree of Bachelor of Arts.

To all members of the Graduating Class of the Scientific Department, in full and regular standing, the Trustees grant diplomas conferring the Academic degree of Bachelor of Science.

To all members of the Graduating Class, in either Department, who have satisfactorily pursued special courses of study, a certificate is granted stating the studies pursued and the attainments made.

To those students who have pursued satisfactorily the studies of the first two years of the Scientific Course, and who desire to leave at that time, a special certificate is granted by the Faculty.

The following regulations have been adopted by the Board of Trustees in regard to the graduating exercises at Commencement.

1. The privilege of speaking at Commencement shall be open without distinction to the Classical and Scientific Sections of the Graduating Class.

2. The graduation honors shall be as follows:

FIRST HONOR—Latin Salutatory.
SECOND HONOR—English Salutatory.
THIRD HONOR—Philosophical Oration.
FOURTH HONOR—Scientific Oration.

If the first honor be awarded to a member of the Scientific Section of the Graduating Class, he shall deliver a German Salutatory.

3. The Valedictory shall be regarded as a *Rhetorical honor*, and shall be awarded to the best writer and speaker in his class (to be determined by his grade in composition and elocution during the Junior and Senior years), provided, that he must have been a member of his class for two years, and have a general grade in scholarship among the best two-thirds.

4. Eleven other speakers shall be chosen, of whom six shall be chosen by grade in scholarship, provided, that in their grade in composition and elocution during their Junior and Senior years they be among the best two-thirds; and five shall be chosen by grade in composition and elocution during their Junior and Senior years, provided, that in their general grade in scholarship they be among the best two-thirds.

DEGREES OF A.M., AND M.S.

By resolution of the Board of Trustees, the degrees of A.M. and M.S. will not be conferred after June 1881 in course, but only as the result of examination.

Post-Graduate Studies.

Provision is made for post-graduate courses of study in the following departments:

1. *Moral Philosophy and the Evidences of Christianity.*

Instruction in this department will consist of the History of Ancient and Modern Moral Philosophy, and the critical study of different systems from original sources.

2. *Metaphysics.*

In this department the student will pursue a selected course in the best philosophical authors, and receive carefully prepared criticisms upon them, with the view especially of acquainting himself with the distinctive opinions and influence of the chief representative thinkers of the various schools of philosophy.

3. *Geology and Chemistry.*

In Chemistry, students pursue special studies and undertake experimental investigations in the Analytical Laboratory, under the direction of a professor, upon subjects connected with industrial or professional life.

In Geology and Natural History, the large collections in Geological Hall, are available for extended courses of study, and can be used under the direction of a professor for special study in Geology, Mining, Metallurgy, and the various branches of Engineering.

In Agriculture, the well equipped farm and laboratories give unusual opportunities for advanced studies in this department, and every facility is offered for their use.

4. *Mathematics.*

Instruction will be given in any of the following subjects: Geodesy, with practice; Higher Mathematics (pure); Theoretical and Practical Astronomy; the use of Physical Apparatus.

5. *Greek Language and Literature.*

Instruction will be given in Aristotle's Organon, and other advanced Greek authors, accompanied with a study of the Comparative Grammar of the Indo-Germanic Languages as bearing on Greek.

6. *Modern Languages.*

The course will include Lectures on French Literature; Lectures on German Literature; Lectures on German Etymology, on German Mythology, and on the Phonology and Morphology of the Indo-Germanic Languages, as bearing on German.

7. *Political and Social Science.*

In this department provision is made for instruction in an Advanced Course in Political Economy; in the Constitutional History and Jurisprudence of the United States; in the History of the English Constitution: and in the elements of Roman Law.

These subjects, according to the choice of students, will be arranged in courses of one, two, or three years. Students completing a full course of two years, in any two of the departments, will be entitled to the degree of Bachelor of Philosophy. Students completing a full course of three years, in any three of the departments will be entitled to the degree of Doctor of Philosophy.

Regulations.

Morning prayers are attended in the College Chapel each morning, except Saturday and Sunday, at 8.40 o'clock.

The recitation hours extend from 9 o'clock A. M. to 1 o'clock P. M., during five days of the week.

A Biblical Recitation is held Sabbath morning in the College Chapel at 9.30 o'clock, which all students are required to attend.

A sermon is preached every Sabbath morning in the College Chapel at 10.30 o'clock. Students are required to be present, and also to attend public worship in the afternoon and evening, at such places as their parents or guardians may direct.

No student is allowed to leave the city during term time without permission from his Division Officer.

Recitations are marked on a scale of 100, and the average standing of each student is made up at the end of each term, and sent to his parent or guardian. A mark at examination counts as much as one-third of the term.

If the grade of a student in any term falls below one-half the maximum in one of his studies, he is conditioned in that study, and must be re-examined therein before graduating.

If the general average of any student in any term falls below one-half of the maximum grade, his case must be acted on as the Faculty shall deem necessary.

If any student's grade in any term falls below one-half of the maximum in all his studies, he loses his standing in his class, and is dismissed from College.

If any student is found to be notably deficient in his daily recitations, or at the examination in any of his studies, his case is reported to the Faculty, and such action by way of discipline is taken as may be deemed necessary.

No student can enter an advanced class until all his deficiencies are made up, and if he fails to make up all his deficiencies before the opening of the College year, he is required to go back a year in his course. Examinations for making up said deficiencies, are to be held on the day preceding the opening of College in September.

College Expenses.

Fees.

Tuition, per annum,	$75 00
Incidentals—Janitor, fuel, &c., per annum,	8 00
Reading Room, per annum,	2 00
Admission Fee,	5 00
Graduation Fee,	7 50
Analytical Chemistry, extra, per term,	15 00

Damages are in all cases chargeable to the persons committing them.

Of the above expenses, the admission fees are payable on entrance to the College Treasurer; the incidental expenses are payable at the beginning of the first term, in September; of the tuition fees one-third, viz., $25, is payable within ten days after the beginning of each term.

Students in Analytical Chemistry are charged $15 additional per term, for chemicals and use of Laboratory. They are also expected to provide themselves, at their own expense, with the necessary sets of apparatus, which may be obtained from the regular apparatus dealers, or from the Laboratory Supplies department. These sets are retained through the year, but at the end of it if the owners do

not wish to retain them, they will be purchased at a fair price. If proper care has been exercised, a small discount only (about 10 per cent.) from the original cost will be made.

Board.

Board, with furnished rooms, can be obtained in New Brunswick at the present time for $4 to $7 per week; board without rooms for $3.50 to $5 per week. These prices do not include lights or fuel,—which cost from $3 to $5 per term, as the students having the ministry in view can obtain rooms in Hertzog Hall, on the same terms as the students in the Theological Seminary, viz.: at an expense of $34 per annum, payable one-half at the beginning of the first term, and one-half at the beginning of the second term. The rooms are heated and lighted.

The Faculty are empowered to pass such regulations relative to the number of boarders in each house as they think proper; and students shall board only at such places as are approved by them.

By combining in clubs, students are able to reduce somewhat their expense for board.

Beneficiary Aid.

1. Van Benschoten Fund.

This fund, the gift of Rev. Elias Van Benschoten, in 1814, amounting to $20,813, was given in trust jointly to the General Synod of the Reformed Church and the Trustees of Rutgers College, to aid in the education of indigent students for the ministry. The students who enjoy the benefits of this fund are appointed by the Trustees of the College on the nomination of the General Synod of the Reformed Church, and receive $150 annually.

2. Knox Fund.

This fund, consisting of $2,000, was given by Mrs. Rebecca Knox, of Philadelphia, in 1815, to the Trustees of Rutgers College, the income from it to be expended for the support of one student in the Theological Seminary.

3. W. P. Smock Fund.

William P. Smock, of Marlboro, N. J., left by his will, to the Trustees of Rutgers College, the sum of $500, to be invested as a fund, the interest of which should be used to aid in the education of

young men for the ministry. This legacy was received in 1859, and has been since that time duly employed for the purpose indicated.

4. *Mandeville Fund.*

In 1865 the Trustees of Rutgers College received from the executor of the will of William Mandeville, of New York City, the sum of $2,000; said sum to be invested, and the income thereof to be applied to the support of a theological student in the College.

5. *Voorhees Fund.*

Abraham Voorhees, of Franklin Park, N. J., bequeathed by his will $26,000 to the Trustees of Rutgers College, the income of which is to be expended in aiding worthy young men who are candidates for the ministry, while pursuing their studies in Rutgers College. A grant of $200 per annum is made to the students thus receiving aid.

6. *State Scholarships.*

The law of the State of New Jersey granting to the Scientific Department of Rutgers College the Agricultural College Endowment, provides for the education of forty State students free of expense for tuition. These scholarships are distributed among the counties in proportion to their population, and the appointments to fill vacancies are made by the County Superintendents. The appointment gives the *right* to a course of instruction of four years in the Rutgers Scientific School.

7. *Board of Education.*

The Board of Education, of the Reformed Church grants aid to young men preparing for the ministry in the denomination. The conditions are that the persons receiving aid shall have been members of some Evangelical Church one year, and at the time members of some Reformed Church. The aid may be obtained either while in College, or in the Theological Seminary. At present the amount granted is $150 per annum. Information will be given by Rev. John L. See, D.D., 34 Vesey Street, New York.

8. *Rooms for Students.*

Such rooms in Peter Hertzog Hall as may not be required for the use of the students of the Theological Seminary, are allowed to be occupied by the students of the College and Grammar School who have the ministry in view, and on the same conditions as the members of the Theological Seminary.

Prizes and Honors.

All prizes and honors are open equally to members of the Classical and Scientific Departments, expect in cases where prizes are specifically limited to one department by the donor. Each competitor for a prize must sign a written declaration that the essay or other work offered by him is his original and unaided work. They are as follows:

1. Suydam Prize for Composition.

This prize, the gift of James Suydam, Esq., is a gold medal of the value of forty dollars, or that sum in money, and is to be given to the member of the Senior Class who shall write the best English Composition on the subject assigned to the class by the Professor of Rhetoric. Competitors must hand in their compositions on or before April 19th. The student to whom the prize is awarded must copy his composition upon paper furnished by the College, and present it for preservation in the Library before he can receive the prize.

Subject for 1880: "What is the value of Phrenology as a Science?"

Committee: Rev. M. H. Hutton, D.D.,
Henry M. Alden, Esq.,
Rev. George Hulst.

2. Suydam Prize in Natural Science.

This prize, the gift of the late James Suydam, Esq., is a gold medal of the value of forty dollars, or that sum in money, and is to be awarded to the member of the Senior Class who shall have made the greatest attainments in Natural Science. The examination is upon all the subjects of Natural Science in the College Course, and is conducted by the Professors in those subjects. The questions and answers are required to be written.

3. Brodhead Classical Prize.

This prize is the gift of Rev. Dr. Jacob Brodhead, and his son, J. Romeyn Brodhead, L.L.D. It is the interest on $500, to be given to the best Senior Classical scholar on the following conditions:

First, "That those who offer themselves as candidates for it shall be subjected to a special examination, at a time to be fixed by the Faculty near to the close of the Senior year."

Second, "That the subject of the examination be a passage or play of some Classical author (not included in the College programme

of Studies), to be selected by the Classical Professors, and to be announced at least one month before the time fixed for the examination."

Third, "A subject for an essay shall be announced at the same time, and the essay shall be given in on the day of examination."

Fourth, "Both the examination and the essay shall be taken into account in the adjudication of the prize. A law copy of the essay of the Prize man shall be handed in by him before the medal is put into his hands, to be preserved among the archives of the College."

Subject for Examination for 1880: "The Fragments of Empedocles, Parmenides and Heracleitus."

Part II. in Wilkins' Manual of Greek Prose Composition.

Subject of Essay for 1880, (To be written in Greek): "The Greek Idea of Nature." If five or more contestants offer, a second prize of $25, will be given by the Professor of Greek.

4. Bradley Mathematical Prize.

This prize is given by Hon. Joseph P. Bradley, LL.D., and consists of a valuable Mathematical work, which is to be bestowed on the student of the Senior Class who shall present the best solution of a set of Mathematical problems to be proposed to the class by the Professor of Mathematics before the close of the second term.

5. Myron W. Smith Prizes.

These prizes were founded by Lyndon A. Smith, M.D., of Newark, in the name of his son, Adjutant Myron W. Smith, who was a graduate of the College, and who gave his life in the late war to the cause of his country. They consist of the interest of $500, proportionately appropriated to two medals, one of gold and the other of silver, which are to be awarded respectively to the best and second best speakers of the Sophomore Class. Only those students who shall have pursued, in the College, the regular studies preparatory to the degree of the Bachelor of Arts from the beginning of the Freshman year, shall be allowed to contend for these prizes.

The competition for these medals shall take place at an exhibition to be held on the 22d day of February; on which occasion the eight students of the Sophomore Class who shall be adjudged by the Faculty to be the best speakers of their class, shall deliver declamations, from which number the committee appointed for the purpose shall select the best and second best, to whom the medals shall be awarded. The medals shall be presented at Commencement.

Committee for 1880: REV. W. T. ENYARD,
D. A. RYERSON, ESQ.,
ARTHUR G. OGILBY, ESQ.

6. Tunis Quick Prize in Spelling and English Grammar.

This prize, the gift of P. Vanderbilt Spader, Esq., of New Brunswick, is the income of $300, at 7 per centum, and is to be presented to that member of the Freshman Class, Classical or Scientific, who shall pass the best examination in Spelling and English Grammar.

The examination is to be conducted in writing by the Professor of English Literature, at as early a day as convenient in the second College term, and under such regulations as the Faculty may from time to time establish.

The prize may be withheld from any or all papers offered, either for want of merit or for failure of proper competition. In case the prize be not awarded in any year, it is to be offered one year later to the members of the same class, on the same conditions as at first.

All regulations as to time, manner and conditions of awarding the prize are subject to change by the Board of Trustees.

7. Peter Spader Prizes in Modern History.

These prizes, the gift of P. Vanderbilt Spader, Esq., are two in number, the income of $400 and $300, respectively, at 7 per centum, and are to be awarded to those members of the Sophomore Class, Classical or Scientific, who shall present the best essays on some subject in Modern History, selected by the Professor of History, with the approval of the Faculty.

The subject is to be announced at the close of the Freshman year, and the competing essays are to be handed in on or before the third Monday in the third term of the Sophomore year.

The committee annually appointed by the Faculty, may decline to award these prizes, or either of them, for want of merit in the essays, or for failure of proper competition. In case the prizes be not awarded in any year, they are to be offered one year later to the members of the same class, on the same conditions as at first.

Successful essays are to be copied on paper selected by the Faculty, and deposited in the College Library, before the writer receives his prize.

All regulations as to time, manner and conditions of awarding the prizes are subject to change by the Board of Trustees.

Subject for 1880: "History of the Territorial Enlargement of the United States since 1783."

Committee: PROF. M. N. WYCKOFF,
PROF. B. B. SEELYE,
REV. W. R. TAYLOR.

8. Cook Prize for Mineralogy.

A prize consisting of 100 species of minerals, arranged and assorted in a case, is offered to the member of the Graduating class of 1880, who shall identify and name the largest number of them, fifty being the minimum.

9. Appleton Memorial Prize in Moral Philosophy.

This prize was founded by a gift of $500, from Rev. Samuel E. Appleton in the name of his mother, Mrs. Elizabeth Appleton. It consists of $35—the interest of the above sum, and will be given to the member of the Senior Class who shall pass the best examination in Moral Philosophy.

Committee for 1880: Rev. A. B. Van Zandt, D.D.,
John Woodbridge, D.D.,
Nicholas Williamson, M.D.

10. Wm. Wilson Prize in Mental Philosophy.

This prize consists of $25, given by Rev. F. F. Wilson, and Rev. P. Q. Wilson, in honor of their father, Captain William Wilson, of the New Jersey State Militia. It will be open to competition for students in both the Classical and Scientific Sections who are pursuing the study of Mental Philosophy, and will be bestowed on the one who shall pass the best examination on some work assigned by the Professor of Metaphysics.

Work for 1880: "Locke's Essay on the Human Understanding."

11. Wm. H. Van Doren Prize for the best Essay on Christian Missions.

This prize consists of $20, the gift of Rev. William H. Van Doren, D.D. It is open to competition for members of the Senior and Junior Classes in both Sections; and for members of the Theological Seminary.

Committee for 1880: Rev. Wm. H. Teneyck, D.D.,
Rev. John L. McNair,
Rev. J. S. Heisler.

12. Junior Exhibition.

Eight members of the Junior Class are chosen each year, in equal numbers from the Peithessophian and Philoclean Literary Societies,

who deliver original speeches at an exhibition held on the Tuesday evening preceding Commencement. The selection is made by a committee of three persons, of whom one is chosen by each Society, and a third by the Faculty, and is based upon relative excellence as writers and speakers.

Library and Museum.

1. Library.

The Library of the College is open for consultation every day at stated hours during each term. The collection of books, although entirely inadequate to the wants of the Institution, is yet of great value. It has received considerable additions during the past few years, and no effort will be spared to make it what the Institution requires. Donations to this object, either in money or books, are earnestly solicited.

By the gift of a permanent fund of $1,000 from James Suydam, Esq., the Library is supplied with the leading learned periodical publications in the various departments.

2. Museum and Apparatus.

The Trustees solicit contributions from the friends of the College to the collections of the Museum. It is their wish to increase greatly the present valuable collections by additions in all departments. Donations of specimens illustrating Geology, Mineralogy, Natural History, Coins, Curiosities, and Antiquities, and the Industrial Arts, are earnestly requested. Ample rooms are provided in the new Geological Hall for the proper preservation and display of such specimens. By the kindness of numerous friends, suitable cases have been provided to receive the collections which the College already possesses, and they are now being arranged as rapidly as circumstances will allow. The Museum is open at stated times during each term.

The apparatus of the College for illustrating the various branches of science, is extensive and serviceable. It has been obtained as the wants of the classes demanded, and comprises most of the recent additions to Chemical and Philosophical apparatus. The students in Analytical Chemistry are provided with the requisite facilities for analyzing and assaying. The arrangements for these departments in the building recently erected are of the most ample and convenient description.

Register.

1. Sophomore Exhibition.

MYRON W. SMITH PRIZES FOR ORATORY, FEB. 22, 1879.

LIST OF CONTESTANTS AND PRIZE-MEN.

HENRY D. B. MULFORD, Hudson, N. Y.,.....First Prize.
LIVINGSTON L. TAYLOR, Newark,..... Second Prize.

JESSE W. BROOKS,...Cheshire, Conn. GEORGE FIELDER,..New Brunswick.
LEWIS CORY,.....San Jose, Cal. CHAS. N. IRONSIDE,...Covington, Ky.
JOSIAH E. CRANE,...Fair Oaks, N. Y. JOEL LOUCKS, Palatine Bridge, N.Y.

2. Junior Exhibition.

ORATORS FOR 1879.

Philoclean Society.	*Peithessophian Society.*
CHAS. F. CANTINE,...Saugerties, N.Y.	G. D. B. HASBROUCK, Port Ewen, N.Y.
EDWARD C. DELEVAN, JR., N.Y. City.	B. MILLER VAN SYCKEL,....Newark.
W. D. HASBROUCK, Orangeburg, N.Y.	N. W. VOORHEES, JR.,.....Clinton.
EDWIN F. SEE,.....Tarrytown, N.Y.	FREDERICK WEIGEL,..N. Brunswick.

3. Graduating Exercises June 18, 1879.

HONORS.

ISAAC W. GOWEN, New Brunswick...*Latin Salutatory*,.....First Honor.
HERMAN HAGEMAN, JR., Readington..*English Salutatory*,.....Second Honor.
A. H. DEMAREST, New Brunswick....*Philosophical Oration*,...Third Honor.
ASHER MURRAY,* Delhi, N.Y.....*Scientific Oration*,.....Fourth Honor.
SEAMEN MILLER, Linlithgo, N.Y..... *Valedictory Oration*, Rhetorical Honor.

ORATIONS.

JOHN E. ACKERMAN,..Dundee Lake, A. V. L. PUMYEA,...Three-Mile-Run,
JOS. E. ALDRICH,.....Catskill, N.Y., JOHN SCARLET,.....South Branch,
C. W. CUTLER,.....Morristown, THEO. SHAFER,.....Cedar Hill, N.Y.,
PETER K. HAGEMAN,...Bound Brook, CORNELIUS SCHENCK,.N. Brunswick,
A. B. NELSON,.....Piscataway, J. L. STILLWELL,.....Somerville,
GEORGE VAN DERVEER,....Somerville.

MASTER'S ORATION.

PETER H. MILLIKEN, Class 76, Bloomingburg, N. Y.

*Excused.

PRIZES AWARDED.

SENIOR PRIZES.

Brodhead Prize for Classics,.....I. W. GOWEN.
Suydam Prize for Natural Science,.....A. B. NELSON.
Suydam Prize for Composition,.....I. W. GOWEN.
Appleton Prize for Moral Philosophy,.....A. H. DEMAREST.
Van Doren Prize for Essay on Missions,.....I. W. GOWEN.
Bradley Prize for Mathematics,.....A. B. NELSON.
Bowser Prize for Best Thesis,.....F. A. WILBER.
Cook Prize for Mineralogy,.....R. A. COOK.

JUNIOR PRIZE.

Wm. Wilson Prize for Mental Philosophy,.....W. A. DUMONT.

SOPHOMORE PRIZES.

Peter Spader Prize in Modern History (1st),.....L. L. TAYLOR.
Peter Spader Prize in Modern History (2d),.....C. N. IRONSIDE.
Myron W. Smith Prize for Declamation, (1st),.....H. D. B. MULFORD.
Myron W. Smith Prize for Declamation, (2d),.....L. L. TAYLOR.

FRESHMAN PRIZE.

Tunis Quick Prize for Grammar and Spelling,.... W. S. CRANMER, R. J. WORTENDYKE.

5. Alumni Association.

OFFICERS FOR THE YEAR 1879–80.

WILLIAM A. NEWELL, - - - - - - President.
REV. JAMES LEFEVRE, - - - - - -
REV. WM. B. MERRITT,* - - - - - - Vice Presidents.
REV. JOHN A. DE BAUM, - - - - -
RICHARD WYNKOOP, - - - - - -
J. BAYARD KIRKPATRICK, - - - - - Treasurer.
ROBERT ADRAIN, - - - - - - - Secretary.
REV. DR. DAVID COLE, - - - - - - - Biographer.
DAVID D. DEMAREST, D.D., - Chairman of Standing Committee.
REV. CHARLES SHEPERD, - Vice-Chair'n Standing Committee.

VEDDER LECTURER FOR 1880.

REV. A. P. VAN GIESEN, D.D.,.....Poughkeepsie, N. Y.

*Deceased Sept. 2, 1879.

Former students of the College, whether graduates or not, are earnestly requested to keep the College informed of any change in their address or occupation, of works published, offices held, &c., both to enable the sending of the annual catalogue, and to furnish material for general catalogues, when printed.

It is now proposed to issue the new edition of the general catalogue so soon as sufficient and reliable data can be obtained.

It is desired to secure for the Library of the College a complete set of all the publications of whatever kind, whether periodical, occasional, or issued by any one in connection with the College, or relating to it. A complete collection of *Rutgersensia* would be of great value to the College and its friends.

Grammar School.

Prof. DeWITT T. REILEY, A.M., Rector.

This School prepares boys for the Classical and Scientific departments of the College, for business, or affords a High School course.

In 1870, the Trustees of the College and School erected on the corner opposite the College Campus, a building fitted with all the conveniences required for a school of high grade. The school has been placed under the management of Rev. DeWitt T. Reiley, Latin Professor in Rutgers College. It is his desire, as it is that of the Trustees, that the Institution should maintain its rank as a classical school for the preparation of boys and young men for entrance to *any* college, while adding thereto that initiation into practical and scientific studies which is required in entering the various Technical and Scientific Schools, or in meeting the demands of modern business life. Those interested in knowing how that rank has been maintained, are invited to notice carefully the course of study, based absolutely on the actual work of the past year.

Boys may enter the Primary Department at the age of from six to twelve years. Thence they pass, when fully prepared to do so, into the Fourth class. When graduated from this class, those who desire preparation for college, pass through the Third, Second, Lower First, and Upper First classes. Those who complete the full course will be prepared to enter the Freshman class of any college and even, with summer study, the Sophomore class of most colleges. Those who intend to enter a Scientific school, or business, take the B, A, and H Scientific classes.

FACULTY.

REV. DEWITT TEN BROECK REILEY, A.M., RECTOR.

GREEK AND HISTORY,

EDSON H. SCOFIELD, A.M., (Cornell Univ.)

NATURAL SCIENCES AND GEOGRAPHY,

EDWARD A. REILEY, B.S., (Rut. Coll.)

MATHEMATICS,

WILLIAM E. BISSELL, (State Normal School.)

LATIN AND ENGLISH GRAMMAR,

I. WILLIAM GOWEN, A.B., (Rut. Coll.)

MODERN LANGUAGES,

PROF. GUSTAVUS FISCHER, LL.D.

WRITING,

HERBERT H. CAMERON.

PRIMARY DEPARTMENT,

MISS LIZZIE FRENCH.

MILITARY DRILL,

UNDER DIRECTION OF H. H. CAMERON.

DRAWING AND BLOW PIPE ANALYSIS.

UNDER DIRECTION OF E. A. REILEY.

DECLAMATION, BOOK KEEPING AND VOCAL MUSIC,

UNDER DIRECTION OF W. E. BISSELL.

EXAMINERS.

GREEK,

WM. H. CAMPBELL, D.D., LL.D., President of Rutgers College.

LATIN,

PROF. GUSTAVUS FISCHER, LL.D., (Author of the Latin Series.)

MODERN LANGUAGES,

CARL MEYER, D.D., Prof. of Modern Languages in Rut. Coll.

HISTORY,

GEORGE W. ATHERTON, A.M., Prof. of History in Rut. Coll.

MATHEMATICS,

ISAAC E. HASBROUCK, A.M., Prof. of Mathematics in Rut. Coll.

ENGLISH GRAMMAR AND GEOGRAPHY,

REV. DEWITT T. REILEY, RECTOR.

COURSE OF STUDY.

PRIMARY DEPARTMENT.

Arithmetic—to Fractions; Geography—Guyot's Intermediate begun; English Grammar—Swinton's Language Lessons; Reading-Hillard's Second and Third Readers; Spelling—Paterson's Speller; Botany—Object Lessons; Natural Science—in Lectures for children, by Dr. Lockwood.

Writing, Composition, Declamation, Drawing, Gymnastics, and Object Lessons.

GRAMMAR SCHOOL DEPARTMENT.

FIRST YEAR. FOURTH CLASS.

Arithmetic—To Compound Numbers; Review: Mental Arithmetic—Brooks'; Geography—Guyot's Intermediate finished; English Grammar—Swinton's Elementary; United States History—Barnes'; Latin—Fischer's Grammar and Reader begun; Latin Composition—Fischer's begun; Reading—Hillard's Fourth Reader; Spelling—Warren's Speller; Natural Science—Lectures; German—Fischer's Ahn.

Writing, Composition, Letter Writing, Declamation and Military Drill.

SECOND YEAR. THIRD CLASS.

Arithmetic—Through Interest; Mental Arithmetic—Brooks' Normal; Latin—Grammar and Reader to Syntax; Latin Composition—Fischer's to Book II; Geography—Guyot's Grammar School; English Grammar—Swinton's Progressive to Syntax; United States History—Barnes'; German—Fischer's Ahn begun; Reading—Hillard's Fifth Reader; Spelling—Warren's Speller; Industrial Drawing—Krusi's; Natural Science—Lectures.

Writing, Composition, Letter Writing, Declamation and Military Drill,

B. SCIENTIFIC CLASS.

This class recites with the Third in all subjects except Latin, substituting for it Book-Keeping—Bryant and Stratton's.

THIRD YEAR. SECOND CLASS.

Algebra—Through Fractions; Arithmetic—Brooks' new Normal; English Grammar—Swinton's Progressive; English History—Goodrich's Reading—Hillard's Sixth Reader; Spelling—Henderson's Speller; German—Fischer's Ahn finished; Latin—Grammar and Reader finished; Latin Composition—Fischer's to Lesson XXXI; Cæsar's Gallic War—three books; Greek—White's Lessons to Conditional Clauses; Greek—Anabasis, one and a half books; Natural Science—Lectures.

Writing, Declamation, Composition, Letter Writing and Military Drill.

A SCIENTIFIC CLASS.

This class recites with the Second in all subjects except Latin and Greek, substituting for them—

Book-Keeping—Bryant and Stratton's Larger; Industrial Drawing—Krusi's; Draughting—Physiology—Hutchinson's; Commercial Law—Lectures; United States Constitution—Alden; Natural Philosophy—Steele's.

FOURTH YEAR. LOWER FIRST CLASS.

Latin—Cæsar, Books IV, V, VI and VII; Latin—Cicero, Catilinarian Orations; Latin Composition—Fischer's to Book III; Greek—Anabasis, through Book V; Greek Composition—in White's Lessons; Algebra, through Quadratics: German—Reader; General History—Swinton's; Lectures in Geology and Zoology; English Grammar and U. S. History—Reviewed; Composition, Declamation and Military Drill.

H. SCIENTIFIC CLASS.

Algebra to Series; Geometry five books; Botany—Gray's, with Lectures; Chemistry—Steele's, with Lectures; Blowpipe Analysis—(Optional); Physical Geography—Guyot's: Rhetoric—Hart's; General History—Swinton's; Lectures in Geology and Zoology; German—Reader; Elementary Studies Reviewed; Draughting; Composition, Declamation and Military Drill.

FIFTH YEAR. UPPER FIRST CLASS.

Latin—Cicero, three Orations; Latin—Æneid, six books; Latin Composition—Fischer's finished; Roman History and Antiquities; Algebra—Reviewed; Geometry—five books; German—Reader; Greek—Iliad, six books; Greek Composition—White's and Oral; Greek History and Antiquities; Classical Geography; Elementary Studies Reviewed; Composition, Declamation and Military Drill.

NOTES ON COURSE OF STUDY.

The unit of recitation is one of twenty minutes. In many recitations this is doubled, and in a few tripled.

When a book is simply named it is meant that the book is to be *finished* at the end of the year under which it is named.

The H class is joined with the Lower First class in Algebra, General History, German and Science Lectures, and with the upper First class in Geometry, Composition, Declamation and Military Drill.

Compositions are *required* from all classes every two weeks, class declamations weekly and general declamations and debates every three weeks. Parents are requested earnestly *not* to give excuses from these exercises.

When any study is given in Lectures notes are *required.* They must be copied, inspected and graded.

In classical History, Antiquities and Geography, Appleton's Primers of Literature and History will be used.

EXAMINATIONS AND REPORTS.

Examinations are held every ten weeks by the Examiners, most of whom are selected from the College Faculty. They will be enforced rigidly and thoroughly, with the design of showing to the student his deficiencies, and marking to the teacher the exact standing of his class. In grading, the Examination mark will count as one-fourth of the Term mark.

A Report of the standing of each student is sent to his parent or guardian every ten weeks. Any failure to receive a Report should be promptly mentioned to the Rector, *who will not feel responsible where parents refuse or neglect to co-operate with him.* A mark of 100 is perfect, 0 is entire failure, and degrees of scholarship are indicated by marks between these limits. A grade below 60 is poor.

PRIZES.

Prizes are only given for excellence in speaking at the Commencement Exercises in June, and for proficiency in Dr. Lockwood's department. These latter take the form of mineral cabinets.

LITERARY SOCIETIES.

Two Literary Societies meet weekly, managed by the students, with the co-operation of the teachers. In their meetings debates are a prominent feature, and their members are encouraged and urged to take the lead in the debates before the school. The weekly meetings are expected to adjourn before 9.30 P. M.

ATTENDANCE.

The hours of attendance are from 8.30 A. M. to 1.30 P. M. For absence, tardiness, or imperfect recitations, written excuses from parent or guardian are required. A second day's absence will bring a notification to the absentee's parent.

Trains on the Pennsylvania Railroad, which passes through New Brunswick, arrive at all hours of the day. Many pupils from the cities and villages along this line of railroad, live at home and come daily to New Brunswick. For this purpose School tickets may be obtained at a reduced rate. For students living at a greater distance,

a Boarding department is available. The Rector wishes it distinctly understood that, in a large city like New Brunswick, he cannot be responsible for the good conduct or well-being of boys who are allowed to board in town beyond his control.

TERMS OF TUITION.

PREPARATORY DEPARTMENT, -	$ 9	PER QUARTER.
4TH, AND B SCIENTIFIC CLASSES, -	13	" "
A SCIENTIFIC CLASS, - - -	14	" "
H " " - - - - -	15	" "
3D CLASS, - - - - -	16	" "
LOWER, UPPER 1ST AND 2D CLASSES, -	18	" "

Bills for tuition will be sent quarterly, and are expected to be paid in advance. Pupils will be charged from the time of entrance, except that deduction for absences during the first three weeks of the school year will not be allowed. Students are received at any time, and assigned to the class which they are qualified to enter. They should however, be present on the first day of the term. Those who come a few days late are much embarrassed, and are an embarrassment to others. No deduction is made for absence, unless occasioned by sickness for five weeks or more, when the loss will be shared equally between the parents and the school.

Special instructors will be engaged, if desired, for French, Music, Painting, &c., and their bills will be enclosed with the term bills. In exceptional cases backward boys *may*, with the consent of their parents, and the knowledge of the Rector, take private instruction in out-of-school hours from some of the teachers.

BOARDING DEPARTMENT.

The Rector resides on Hamilton Street, a few blocks distant from the school building. Twenty pupils will be received into his family, and will be under his care and supervision. It is understood that he exercises all the rights, and assumes all the responsibilities of the head of the family. Regular hours of study are required under direction of teachers. Connected with the house are eight acres of ground, with shade trees and facilities for base ball and athletic sports. Daily out-door exercise is required, or, in case of stormy weather, exercise in the Gymnasium.

On Sunday the pupils are required in the morning to attend preaching in the College Chapel, unless the parents otherwise direct. In

the afternoons a Bible Class is held at the house. The Rector endeavors not to make Sunday either a day abhorrent to his pupils, or a day desecrated by them.

Pupils are not allowed to leave the grounds without special permission.

TERMS OF BOARDING DEPARTMENT.

BOARD, TUITION, FUEL AND LIGHT, - $75 PER QUARTER. No extras, except for washing, medical attendance, and studies not in the regular course. Each pupil must bring towels, bag for soiled clothes, napkin ring, plated fork and spoon, umbrella, slippers and overshoes. All articles must be marked with the full name of the owner.

Pupils in the Boarding Department are expected to remain until the close of the year, unless other arrangements are made at the time of entering. Payments to be made on the same conditions as day scholars.

Damage to property will be repaired at the expense of the person committing it.

Necrology.

The following notices, with two exceptions, have been kindly furnished by R v. DAVID COLE, D.D., the pains-taking and efficient Biographer appointed by the Alumni.

The College has lost by death, since the publication of the last Annual Catalogue, two Trustees (one of them an Ex-President of the institution) and five Alumni. The names are as follows:—

HON. ABRAHAM BRUYN HASBROUCK, LL.D., Trustee of the College from 1837, and President from 1840 to 1850.

HON. JOHN A. LOTT, LL.D., Trustee from 1850.

WILLIAM BLOOMFIELD, ESQ., of 1828.

HON. JOHN SHOUSE, of 1835.

REV. ROBERT PITTS, of 1837.

REV. WILLIAM BRUSH MERRITT, of 1862.

REV. JACOB WYCKOFF SCHENCK, of 1870.

John Van Harlingen, M.D., of 1809, and Rev. William W. Blauvelt, D.D., of 1814, are still living, the only surviving graduates of Queens College. The former was born February 19th, 1792, and the latter June 25th, 1800. Both continue in the active work of their professions, Dr. Van Harlingen at Lebanon, Warren County, Pennsylvania, and Rev. Dr. Blauvelt, at Lamington, N. J.

The following information in regard to the deceased has been obtained from press sketches and from personal correspondence with relatives and friends.

HON. A. BRUYN HASBROUCK, LL.D.

This distinguished name will ever be regarded as the synonym of the cultured and genial Christian gentleman. Descended from Huguenot ancestors, who removed from France on account of their fidelity to their Protestant faith, he felt a just pride in his family record, and was always loyal to the principles for which they had suffered. His grand-father, Abraham Hasbrouck, was a Colonel in the Revolutionary army, and his father, Jonathan Hasbrouck, was a Judge of Ulster County, N. Y., and prominent in other public affairs.

The subject of this sketch was born in Kingston, Nov. 29th, 1791. After a course of preparation in the Kingston Academy, he entered Yale College in 1806, and was graduated with high honors from that institution in 1810. Among his class-mates were W. W. Ellsworth, afterwards Governor of Connecticut, and S. F. B. Morse, with whom Mr. Hasbrouck was intimate until death sundered their long friendship.

His law-studies were pursued at the Law-School at Litchfield, Conn., which was in charge of Judge Gould, and then considered the best institution of the kind in the United States. In 1814 he formed a co-partnership with Judge Ruggles, and began the practice of his profession in Kingston. Here he soon acquired distinction for legal knowledge, commanding abilities, and unflinching integrity. Nor did he fail to interest himself actively in political issues. His fine presence and splendid voice, added to eloquence of thought and expression, made him a most effective and popular speaker in behalf of the Whig principles which he earnestly espoused. Elected a representative of Congress in 1825, he became intimate with Edward Everett, whom he subsequently welcomed to New York, with a public address when the latter delivered his great Oration on Washington. Mr. Hasbrouck's literary and religious culture was exercised during this period by various lectures and addresses, and especially by a memorable one in behalf of the American Bible Society, of which he was an active officer.

From 1840 to 1850 he was the honored President of Rutgers College. By his lectures on Constitutional Law, his genial manners, his generous hospitality, and his happy influence exerted on manifold public occasions, he contributed greatly to the prosperity of this venerable institution. After his resignation he removed to Kingston, where he became President of the Kingston Bank, the founder of the Ulster County Historical Society, and an energetic advocate of many public and patriotic interests. The degree of Doctor of Laws was conferred upon him both by Union and Columbia Colleges. His wife, a daughter of Judge Gabriel W. Ludlum, and highly esteemed on account of her exceptional accomplishments and virtues, passed away ten years before himself. Mr. Hasbrouck was always studious in his habits, reading daily some Latin author, and eagerly devouring the latest and most valuable publications on a great variety of topics. It is said that hardly a quotation could be made from an English author that he could not at once identify and find in the original work. E'er a devout believer in Jesus and consistent exemplar of his purifying precepts, he awaited the coming of his Master

not only with calm resignation but with serene and ardent hope. His intellect clear and powerful to the last, expressed his "longing to be at rest," and he passed away triumphant in faith, full of years and honors.

JUDGE JOHN A. LOTT.

The distinguished subject of this sketch was born February 11th, 1806, at Flatbush, L. I. His parents were Abraham and Maria Lott. After a course of preparation at the Flatbush Academy, he entered Union College, from which he was graduated in 1823. After practicing law for a time in New York city, he opened a law office in connection with Hon. H. C. Murphy in Brooklyn, in 1835. Subsequently Hon. John Vanderbilt was admitted to the co-partnership, and the firm of Lott, Murphy & Vanderbilt was one of the most celebrated in Kings County for many years. Mr. Lott, now in the prime of life, entered upon a career of public services in which he earned exceptional distinction both for his abilities and conscientious fidelity to every trust. In 1838 he was appointed County Judge; in 1841 elected to the Assembly of New York State; in 1857 elevated to the Bench of Supreme Court for the unexpired term; 1861 chosen without opposition by the unanimous consent of all parties to the same position for eight years; and in 1869 elected Judge of the Court of Appeals. The new Constitution of the State of New York changed the whole construction of the Courts after he had served a short time. A Commission of Appeals was constituted to clear the Calendar, of which Commission he was the Presiding Justice; and in this capacity he served until 1875.

At the end of his service here he was appointed by Governor Tilden one of the Commissions to draft a uniform Law for the Government of the Cities of the State of New York. To this work he gave unremitting attention and fruitful industry. This was his last public service. His profession of religion was made in 1860, late in life, but his christian zeal in connection with his eminently wise judgment, soon made him a conspicuous leader in the Church. He held all the offices in rapid succession within the gift of the Church at Flatbush, and was frequently a representative to the Classis and General Synod, where his calm, deliberative wisdom shone out. Nor did he shrink from any kind of service in the Master's kingdom. He was a member of the Board of Domestic Missions, and also of the Board of Publication. In 1860 he became a Trustee of Rutgers College, and continued to manifest an eager and efficient interest in

her progress down to the day of his death. The degree of LL.D. was bestowed upon him by Union College. He died suddenly July 20th, 1878.

Judge Lott possessed a strong and active intellect, and yet was tender hearted and sympathetic. He adopted christian truth as the guiding principle of life, not out of custom nor upon any man's authority, but from clear and positive convictions of its Divine origin, its indispensable necessity to the highest manhood here, and to salvation beyond the grave. Remarkably honorable and just in all his transactions, and helpful to every good cause, he died lamented by a large circle of relatives and friends.

WILLIAM BLOOMFIELD, Esq.

Mr. Bloomfield was a son of Smith Bloomfield and Cathleen Vandenbergh. He was born in New York, February 8th, 1808, and died suddenly of paralysis at his residence, No. 28 Dominick Street, on the 23d of January 1879. He entered college at the Junior year, and was graduated with honor in the Class of 1828. He pursued the study of law with John L. Mason, Esq., afterwards a Judge of the Superior Court. He began practice in 1832. In 1838 he formed a law co-partnership with Thomas McElrath & Charles P. Daly. In 1840, Mr. McElrath withdrew from the firm, and associated himself with Mr. Greeley in the publication of the "Tribune." In 1844, Mr. Daly was appointed Judge of the Court of Common Pleas. From the latter date till his death,—thirty-five years,—Mr. Bloomfield carried on his professional work alone. During the existence of the firm, the business of the Harpers, and of nearly every other bookselling and publishing house in the city was entrusted to it. After the dissolution, Mr. Bloomfield was long the professional adviser of the Tribune, and successfully defended it in the several actions for libel brought against it by the novelist, James Fenimore Cooper. He was chiefly known as one of the most eminent chamber counsel in the city. Too modest and unassuming for advocacy, he rarely appeared in the courts. He was a man of extensive legal learning, of the highest integrity, acute, industrious, exceedingly careful in all matters entrusted to him, a lawyer whose opinion on any question of law was relied on as almost unerring. His decisions were nearly always confirmed by the highest courts in cases of appeal. He was for many years a prominent member of the Episcopal Church, and died in that communion.

HON. JOHN SHOUSE.

Judge Shouse was born in Easton, Pa., on the 29th of October, 1815, and died in that city suddenly of heart disease, September 11th, 1879. His father, William Shouse, and his grandfather, Jacob Shouse, were both born in Easton, and his family was one of the oldest resident families of the place. Mr. Shouse was prepared for college in Easton, and was graduated at our college in 1835. He studied law under Judge Hepburn, was admitted to the bar in 1838, and continued to practice till 1847. Failing health led him in that year to lay aside professional work, and engage in mercantile business with his father and brother at Wilsonville, Pike Co., Pa. Here he married Catharine, daughter of Judge Halsey of Sussex Co., N.J., who survives him. In 1861, he was elected Associate Judge of Pike Co. In 1862, he was one of the Commissioners appointed by the legislature to improve the navigation of the Delaware. During his residence in Pike Co., he was an active and leading politician. In 1871, he returned to Easton. Since his return, he had been twice elected to the Town Council, and during the last year, he served as one of the Borough Auditors. His thoroughly reliable character made him the choice of the people for many offices and positions of honor and trust, several of which he held up to the time of his death. We are indebted for our information mostly to the Easton "Free Press" sketch published in the issue of September 11th, 1879.

REV. ROBERT PITTS.

Mr. Pitts was born near Montgomery, Orange Co., New York, in 1813, and died suddenly of heart disease at his home in Stroudsburgh, Pa., on the 16th of November, 1878. He was prepared for college at the Bloomingburgh and Montgomery Academies and was graduated in 1837. Having pursued the course of Theological study at New Brunswick, he was licensed by the Classis of Orange, July 28th, 1840, and ordained by the same Classis as its Missionary on the Delaware, April 21st, 1841. From this date, till 1860, a period of nineteen years, he labored as pastor of the four congregations (two in New Jersey and two in Pennsylvania) together constituting one civil corporation and known as the Church of Walpack. The toil of this great charge, extending for thirteen miles on both sides of the river, was immense. Mr. Pitts was always faithful in meeting appointments, notwithstanding the long rides which they involved. In

1860, his health gave way under the pressure, and since that time, he has been laid aside from regular work in the ministry. Soon after resigning his pastorate, he removed to Stroudsburgh, where he afterwards lived till his death. He was of a happy temperament, and a man of excellent practical judgment. During his ministry, he was instrumental in securing the erection of a new church building for his congregation at Dingman's Ferry, Pa. Several of the present most prominent members of the four Walpack congregations trace their first religious impressions to his preaching. He married Miss Hannah Nyce, of Pike Co., Pa., who survives him. There were no children. Mr. Pitts had been for some time President of the Stroudsburgh Library Association.

REV. WILLIAM BRUSH MERRITT.

Mr. Merritt was born at Kingston, N. Y., April 4th, 1836, and died, after a brief illness, at his home, No. 34 Charles Street, New York City, September 2d, 1879. At sixteen years of age he became a clerk in Kingston, and a year or two later, entered business relations in New York. At the age of twenty-two, convinced that he was called to preach the gospel, he abandoned mercantile life, prepared for college under Drs. Gordon and Mabon, and was finally graduated in 1862. In 1865, after a course in the Seminary at New Brunswick, he was licensed to the ministry by the Classis of New York. For the following eight years he was settled as minister of the Reformed Church at Flatbush, Ulster Co., N. Y., and then, in 1873, was called as pastor of the Union Reformed Church, Sixth Avenue, New York City. In this relation he died. Having just returned from an August vacation, eager to resume his work, he was attacked with disease, which produced his death in less than one week.

The death of this brother at about forty-three years of age, and in the midst of a career of great popularity and usefulness, was severely felt, not by his own people only, but by the whole city in which he labored, and especially by the ministerial circle of the Reformed Church. He was a faithful and successful pastor and an untiring worker. His disposition was unspeakably genial and hearty. Everyone loved and trusted him. As a preacher, he was direct and effective. He was wholly free from affectation in word and manner. No one had more and stronger friendships. He was a member of the Reformed Church Board of Publication for seven years, and proba-

bly contributed more than any other person to save it from dissolution during its most trying experience. He was prominent in many benevolent associations, and rendered especially useful aid to the "Society for the Prevention of Crime." Death overtook him in the midst of an exceptionally devoted and useful life. He had been physically robust beyond the average, and his death was so unlooked for, that the announcement of it was almost paralyzing to his friends. His removal seems to his family, to his ministerial brethren, and to the church an almost irreparable stroke. We simply bow in submission to the will of Him who can not do anything but what is right. Nor can we forget the admonition which comes to ourselves to be ready for our own call away, as "the Son of Man cometh in such an hour as we think not."

REV. JACOB WYCKOFF SCHENCK.

Mr. Schenck was a son of Josiah J. Schenck, and Catharine E. Stryker. He was born at Weston, Somerset Co., New Jersey, June 23d, 1849. While studying at our Grammar School, he gave his heart to Christ. He united with the First Reformed Church at New Brunswick, May 30th, 1867. He was graduated from the College in 1870, and from the Seminary in 1873. On the 8th of July in the same year he was licensed and ordained to the ministry by the Classis of Rensselaer. On the same day he was installed pastor of the Second Reformed Church of Ghent, Columbia Co., New York. Shortly afterwards, he married Miss Jennie Dumont of New Brunswick. After a pastorate of about five and a half years at Ghent, he died of typhoid pneumonia on the 15th of February, 1879. He had never been robust, but was not prostrated and laid aside till within about five weeks of his death.

This young brother was peculiarly consecrated to his work from the time of his conversion. In a college vacation he served the American Tract Society as colporteur in Sullivan Co., New York. During his first Seminary vacation, he labored at Raritan, Illinois. The second he gave to work at Whitneyville, Maine, where he was the instrument of adding twenty persons to the church as the fruit of a revival. A call from a large and influential church in that vicinity was extended to him, which, however, he declined. During his only pastorate of little more than five years and a half, he added nearly fifty on profession of faith to his church. His people were thoroughly united in attachment to their young pastor. He never spared him-

self. He was greatly esteemed by his ministerial brethren. His preaching was practical and earnest, and his best eulogy is found in the fruit he was permitted to gather, and in the sincere sorrow of the whole community over his early death. In the loss of this young and devoted brother, we again read that God's way is in the sea and his path is in the great waters. It will be well for each of us to remember our Redeemer's words, and to make them his own:—"I must work the works of him that sent me, while it is day: the night cometh, when no man can work."

Form of Bequest.

A form of bequest is appended, in the hope that the friends of education will remember the College, and aid the earnest efforts of its friends, to make it as widely and largely useful as possible. As long as it continues to prosper and enlarge, an increase of funds will be needed.

BEQUEST.

I give and bequeath unto the Trustees of Rutgers College, in New Jersey, ... Dollars, for the maintenance and support of said College.

OR,

I give and bequeath unto the Trustees of Rutgers College, in New Jersey, ...Dollars, to endow a Professorship, of.....in said College.

OR,

I give and bequeath unto the Trustees of Rutgers College, in New Jersey, ...Dollars, to increase the Library of said College.

OR,

I give and bequeath unto the Trustees of Rutgers College, in New Jersey, ...Dollars, to increase the Philosophical Apparatus of said College.

OR,

I give and bequeath unto the Trustees of Rutgers College, in New Jersey, ...Dollars, for the endowment of the Grammar School of said College.

Wants of the College.

The growth of the Institution and the demand for greater facilities for education are creating wants which appeal imperatively to the friends of the College.

First, to provide adequate endowment for established professorships, and for such additional ones as may be from time to time needed. *Second*, the funds for some general purposes of the College require a large increase to make yearly additions to the library, and to bind up and keep in order what has been accumulated. *Third*, to make each year fresh additions to the supply of working apparatus in every department, Maps, Charts, Models, Drawings, Casts, &c. A fund that could be used for these and similiar specific objects would greatly increase the working efficiency of the Institution.

Catalogue

OF THE

OFFICERS AND STUDENTS

OF

RUTGERS COLLEGE,

NEW BRUNSWICK, N. J.

1880-'81.

Founded A. D. 1770.

PRINTED FOR THE COLLEGE.

Trustees.

EX-OFFICIO:

HIS EXCELLENCY, GEORGE B. McCLELLAN,.....ORANGE,
Governor of the State of New Jersey.

HON. MERCER BEASLEY, LL D.,.....TRENTON,
Chief Justice of the State of New Jersey.

HON. JOHN P. STOCKTON,.....TRENTON,
Attorney General of the State of New Jersey.

BY ELECTION:

Names.	*Residences.*	*Date of Election.*
REV. WM. H. CAMPBELL, D.D., LL.D., *President of the College.*	New Brunswick,	Sept. 16, 1862
REV. ABRAHAM MESSLER, D.D.,	Somerville,	July 22, 1845
REV. GUSTAVUS ABEEL, D.D.,	Newark,	July 22, 1845
REV. T. E. VERMILYE, D.D., LL.D.,	New York City,	July 24, 1849
HON. JOHN HOPPER,	Paterson,	July 22, 1851
HON. F. T. FRELINGHUYSEN, LL,D.,	Newark,	July 21, 1851
MAURICE E. VIELE, ESQ.,	Albany, N.Y.,	July 27, 1853
HON. ROBERT H. PRUYN, LL.D.,	Albany, N.Y.,	July 27, 1853
REV. DAVID D. DEMAREST, D.D.,	New Brunswick,	April 13, 1858
HON. JOSEPH P. BRADLEY, LL.D.,	Washington, D.C.,	June 29, 1859
REV. FRANCIS M. KIP, D.D.,	Stapleton, S.I.,	Oct. 16, 1860
HENRY L. JANEWAY, ESQ.,	New Brunswick,	April 8, 1862
JOHNSON LETSON, ESQ.,	New Brunswick,	June 16, 1863
REV. GARRET C. SCHANCK,	Marlboro,	April 11, 1866
STAFFORD R. W. HEATH, ESQ.,	Newark,	April 11, 1866
REV. TALBOT W. CHAMBERS, D.D.,	New York City,	June 17, 1868
REV. JOACHIM ELMENDORF, D.D.,	Poughkeepsie, N.Y.,	April 14, 1869
CORNELIUS ESSELSTEYN, ESQ.,	Hudson, N.Y.,	April 14, 1869
REV. PAUL D. VAN CLEEF, D.D.	Jersey City,	April 14, 1869

Names.	*Residences.*	*Date of Election.*
JAMES W. SCHERMERHORN, Esq.,	New York City,	Feb. 7, 1871
WILLIAM C. FOWLER, Esq.,	Brooklyn, N.Y.,	April 13, 1871
SAMUEL SLOAN, Esq.,	New York City,	June 20, 1871
Hon. GEORGE C. LUDLOW,	New Brunswick,	June 17, 1873
Hon. WILLIAM A. NEWELL,	Allentown,	June 17, 1873
Rev. ISAAC S. HARTLEY, D.D.,	Utica, N.Y.,	June 17, 1873
Hon. THEODORE F. RANDOLPH,	Morristown.	March 31, 1874
S. O. VANDERPOEL, M.D., LL.D.,	Albany, N.Y.,	June 22, 1875
THEODORIC R. WESTBROOK, LL.D.,	Kingston, N.Y..	Oct. 26, 1875
Rev. WILLIAM ORMISTON, D.D..	New York City,	June 20, 1876
Rev. JOHN GASTON, D.D.,	Passaic,	June 20, 1876
HENRY W. BOOKSTAVER, Esq.,	New York City,	June 20, 1876
ROBERT F. BALLANTINE, Esq.,	Newark,	June 20, 1876
Rev. WM. RANKIN DURYEE, D.D.,	Jersey City,	March 5, 1878
Rev. WM. J. R. TAYLOR, D.D.,	Newark,	June 18, 1878
Rev. ABRAHAM R. VAN NEST, D.D.,	Philadelphia, Pa.,	Oct. 29, 1878
JOHN LEFFERTS, Esq.,	Flatbush, L.I.,	Oct. 29, 1878
WILLIAM CLARK, Esq.,	Newark,	Oct. 29, 1878
Hon. GEORGE H. SHARPE,	Kingston, N.Y.,	March 4, 1879

Rev. DAVID D. DEMAREST, D.D.,.....New Brunswick,
Secretary of the Board.

JOHN C. ELMENDORF, Esq.,.....New Brunswick,
Treasurer.
Office—39 Albany Street.

PETER THOMAS, *Janitor.*

Faculty.

REV. WILLIAM HENRY CAMPBELL, D.D., LL.D.,
(PRESIDENT,)
THEODORE FRELINGHUYSEN *Professor of Biblical Literature, Evidences of Christianity, and Moral Philosophy.*

GEORGE H. COOK, LL.D.,
(VICE PRESIDENT,)
Professor of Geology and Agriculture.

REV. DEWITT TEN BROECK REILEY, A.M.,
Professor of the Latin Language and Literature, and Rector of the Grammar School.

REV. T. SANDFORD DOOLITTLE, D.D.,
COLLEGIATE CHURCH *Professor of Rhetoric, Logic, and Mental Philosophy.*

REV. JACOB COOPER, D.D., D.C.L.,
Professor of the Greek Language and Literature.

JOHN CONOVER SMOCK, A.M.,
Professor of Mining and Metalurgy.

GEORGE W. ATHERTON, A.M.,
VOORHEES *Professor of History, Political Economy, and Constitutional Law.*

REV. CARL MEYER, D.D.,
Professor of Modern Languages.

FRANCIS CUYLER VAN DYCK, A.M.,
Professor of Physics and Inorganic Chemistry.

EDWARD E. BOWSER, M.S., C.E.,
Professor of Mathematics and Engineering.

ISAAC EDGAR HASBROUCK, A.M.,
Professor of Mathematics and Graphics.

GEORGE BENJAMIN MERRIMAN, A.M.,
Professor of Mathematics, Astronomy and Experimental Mechanics.

PETER TOWNSEND AUSTEN, PH.D., F.C.S.,
Professor of Analytical and Applied Chemistry.

REV. CHARLES EDWARD HART, D.D.,
Professor of English Language and Literature.

SAMUEL N. HOLMES, 1ST LIEUTENANT 13TH U. S. INFANTRY,
Professor of Military Science and Tactics.

FRANCIS AUGUSTUS WILBER, B.S.,
Assistant in Analytical Chemistry.

ISAAC EDGAR HASBROUCK, A.M.,
Librarian.

The names of Professors are arranged according to seniority of appointment, with the exception of the President's.

Catalogue of Students

For the Year Beginning Sept. 20, 1880.

RESIDENT GRADUATES.

Names.	*Residences.*	*Rooms.*
Theo. Frelinghuysen DeWitt,	New Brunswick,	Seminary Place.
John Edward Elmendorf,	New Brunswick,	39 Albany St.
Abel H. Huizinga,	Zeeland, Mich.,	46 Hertzog Hall.
Charles Morgan,	New York City,	College Farm.
W. D. Schoonmaker,	New Brunswick,	College Ave.
Howard D. Terhune,	New Brunswick,	149 George St.
Joseph A. Van Mater,	New Brunswick,	79 George St.

SENIOR CLASS.

CLASSICAL SECTION.

Names.	*Residences.*	*Rooms.*
Theodore Burges Booraem, Jr.,	New Brunswick,	54 Bayard St.
Jesse Wendell Brooks,	Cheshire, Conn.,	25 George St.
Gardner Hale Cain,	Harlingen,	78 Bayard St.
Marion Townsend Conklin,	Kingston, N.Y.,	21 Hertzog Hall.
Josiah Elmer Crane,	Fair Oaks, N.Y.,	36 Lee Ave.
Henry John De Vries.	N. Y. City,	26 Paterson St.
George Fielder,	New Brunswick,	College Ave.
Cornelius I. Haring,	Nyack Turp'ke,	N.Y., 123 Geo. St.
Richard Charles Harrington,	Newark,	Newark.
Charles Norton Ironside,	Covington, Ky.,	20½ Albany St.
Martin Wyckoff Lane,	Neshanic,	78 Bayard St.
Robert Lefferts,	Flatbush, L.I.,	20½ Albany St.
Charles Edward Lord,	Metuchen,	Metuchen.
Joel Loucks,	Palatine Bridge,	N.Y., 19 H. Hall.

Names.	*Residences.*	*Rooms.*
WILLIAM MCNAIR,	Bedminster,	62 Bayard St.
HENRY DU BOIS MULFORD,	Hudson, N.Y.,	59 French St.
WILLIAM SCHMITZ, JR.,	New York, N.Y.,	28 Hertzog Hall.
CHESTER B. SCHOONMAKER,	Stone Ridge, N.Y.	College Ave.
CHARLES BUCHANON SCOTT,	Holland, Mich.,	123 Neilson St.
GEORGE HENRY STEPHENS,	North Branch,	62 Bayard St.
LIVINGSTON LUDLOW TAYLOR,	Newark,	Newark.
IRVING STRONG UPSON,	Marion, Conn.,	44 Hertzog Hall.
J. RUSSELL VERBRYCKE,	New Brunswick,	20 Church St.
EDWARD BURNETT VOORHEES,	South Branch,	123 George St.
JAMES SYLVESTER WIGHT,	Jersey City,	62 Bayard St.
GARRET GARRETSON WYCKOFF,	Pompton,	96 George St.

SCIENTIFIC SECTION.

Names.	*Residences.*	*Rooms.*
JOHN BRUERE,	New Egypt,	73 Albany St.
FREDERICK W. DENISE,	Freehold,	79 George St.
THOMAS HENRY GRANT,	Red Bank,	cor. Ham.& Guil.Sts.
JOHN KINNAN HOW,†	Voorhees Station,	Voorhees Stat'n.
OAKLEY A. JOHNSON,	Hackettstown,	49 Schureman St.
FREDERICK WILLIAM MALCOLM,	New York City,	69 Albany St.
JOHN TRUMBULL MARSHALL,	Metuchen,	Metuchen.
JOHN FORSYTH MCWILLIAM,	East Millstone,	East Millstone.
ROBERT CECIL PLUME,	Jersey City,	56 Albany St.
CHARLES STRONG RUSLING,	Lawrenceville, Pa.,	201 Burnet St.

JUNIOR CLASS.

CLASSICAL SECTION.

Names.	*Residences.*	*Rooms.*
JOHN BARTLETT ALDEN,	Catskill, N.Y.,	Metuchen.
THEODORE AMERMAN BEEKMAN,	South Branch,	30 Hertzog Hall.
IRVING BURDICK,	Brooklyn,N.Y.,	Cor.Geo.& Alb.Sts.

† Partial.

Names.	*Residences.*	*Rooms.*
JACOB CHESTER CHAMBERLAIN,	Madanapalle, India,	Sem'y Place.
WILLIAM ISAAC CHAMBERLAIN,	Madanapalle, India,	Sem'y Place.
WILL. STOCKTON CRANMER,	Jersey City,	Hamilton Ave.
CHARLES LEAVITT EDGAR,	Griggstown,	74 Bayard St.
JOHN HAMILTON GILLESPIE,	Jersey City,	23 Hertzog Hall.
ABRAHAM BRITTON HAVENS,	Jersey City,	74 Bayard St.
JOSEPH HOVER,	New Brunswick,	47 Albany St.
HOWARD MELVILLE LANSING,	Brooklyn, N.Y.,	Cor. Geo. & Alb'y.
WILLIAM FRED. MIDDELEGGE,	Jersey City,	Cor. George & Albany.
EDWIN OSCAR MOFFETT,	Metuchen,	Metuchen.
JOHN MORRISON,	Fishkill-on-Hud'n, N.Y,	26 H.H.
WALTER NEWELL,	New Brunswick,	146 George St.
JAMES AVERY NORRIS,	Shavertown, N.Y.,	East N. B.
JAMES POWERS PHILIP,	Catskill, N.Y.,	College Ave.
NELSON DEWITT PUMYEA,	New Brunswick,	Three-Mile-Run.
PHILIP WILSON PITCHER,	Poughkeepsie, N.Y.,	32 H. H.
EDGAR F. RANDOLPH,	Morristown,	69 Albany St.
MYRON TRACY SCUDDER,	Up-Red-Hook, N.Y.,	30 Hert. Hall.
DANIEL WESLEY SKELLENGER,	Chester,	19 Hertzog Hall.
RYNIER J. WORTENDYKE,	Jersey City,	55 Albany St.

SCIENTIFIC SECTION.

Names.	*Residences.*	*Rooms.*
OWEN BENJ. FRANKLIN ALLEN,	Allenwood,	94½ Albany St.
FREDERICK WAGONER BENNETT,	Cape May C. H.,	College Ave.
JOHN NEWTON BERNART,	Midvale,	96 George St.
PHILIP HASBROUCK BEVIER,	Gardiner, N.Y.,	96 George St.
FRANK STRONG CURTIS,†	East New Brunswick,	East N. B.
NATHANIEL B. KLINK HOFFMAN,	Readington,	63 Bayard St.
GEORGE HENRY JOHNSON,	New Brunswick,	8 George St.
SOLOMON LEFEVRE,	New Paltz, N.Y.,	58 Paterson St.
NEHEM. DUNHAM VANSYCKEL,	Bound Brook,	67 Church St.

† Partial.

SOPHOMORE CLASS.

CLASSICAL SECTION.

Names.	*Residences.*	*Rooms.*
HENRY WARREN BEEBE,	New Brunswick,	117 Somerset St.
GEORGE B. MCCLELLAN BELL,	New Brunswick,	77 French St.
JOHN TALLMADGE BERGEN,	Flatlands, L.I.,	12 Hertzog Hall.
JOHN HENRY BRANDOW,	Coxsackie, N.Y.,	6 Paterson St.
GEORGE ZABRISKIE COLLIER,	New Brunswick,	71 Bayard St.
FREDERICK WALKER CUTLER,	Morristown,	69 Albany St.
WILLIAM H. STEELE DEMAREST,	New Brunswick,	Seminary Place.
JOHN HANDLEY,	Sayreville,	Sayreville.
FRED. PARSELL HILL,	East New Brunswick,	Raritan Av.
WILLIAM HENRY HOUGH,	Trenton,	4 Schuyler St.
JOHN LAUBENHEIMER,	Bergen Point,	4 Schuyler St.
GEORGE MUNN LILBURN,	Haverstraw, N.Y.,	4 Kirkpatrick St.
WILLIAM CHRISTIAN MILLER,	Albany, N.Y.,	69 Bayard St.
ROBERT V. PALMER,	Poughkeepsie, N.Y.,	74 Bayard St.
HARRY MORTIMER PETERS,	Newark,	44 Park Place.
JOHN LUDLOW SCHENCK,	Neshanic,	78 Bayard St.
JARED WATERBURY SCUDDER,	Brooklyn, N.Y.,	Ham'n & Guilden.
ALFRED FORD SKINNER,	Belleville,	123 George St.
CYRUS SMITH,	New Brunswick,	Redmond St.
THEODORE STRONG,	New Brunswick,	Hamilton Ave.
DUNCAN DUNBAR SUTPHEN,	Newark,	123 George St.
HENRY JUDD WARD,	Middleville, N.Y.,	6 Paterson St.

SCIENTIFIC SECTION.

Names.	*Residences.*	*Rooms.*
M. GEORGE BIERMAN,	Newark,	16 Church St.
GEORGE ELTON JENKINS,	Mine Hill,	College Ave.
THOMAS DOREMUS VAN SYCKLE,	Newark,	990 Broad St.
WILLIAM COCHRAN WARD,	Newark,	155 George St.

† Partial.

FRESHMAN CLASS.

CLASSICAL SECTION.

Names.	*Residences.*	*Rooms.*
PETER S. BEEKMAN,	New Brunswick,	Hamilton St.
MATTHEW LINN BRUCE,	Andes, N.Y.,	4 Kirkpatrick St.
WILLIAM PATERSON BRUCE,	Andes, N.Y.	4 Kirkpatrick St,
PETER CRISPELL,	Hurley, N.Y.,	4 Kirkpatrick St.
GEORGE DAVIS,	White House Station,	62 Bayard.
BENJAMIN EDWARD DICKHAUT,	East New York, L.I.,	Hertzog Hall.
WILLIAM GOODWIN LUDLOW,	New Brunswick,	81 Albany St.
JAMES GULICK MEYER,	Matteawan, N.Y.,	78 Bayard St.
CHARLES EDWARD PATTISON,	Metuchen,	Metuchen.
DEWITT EDWARD ROGERS,	Fishkill-on-Hudson, N.Y.,	79 Geo.
FERDINAND VANDERVEER ROGERS,	Davenport, Iowa,	79 George St.
HENRY HALE SLEEPER,	Philadelphia, Pa.,	Washington, S.R.
JOHN A. THOMSON,	New Kingston, N.Y.,	4 Kirkp. St.
HENRY VANBRACKLE,	Hazlet,	35 Hertzog Hall.
J. ALFRED VAN NEST,	New Brunswick,	2 French St.
GEORGE AUGUSTUS VROOM,	East Haddam, Conn.,	Albany & Geo.

SCIENTIFIC SECTION.

Names.	*Residences.*	*Rooms.*
GEORGE H. BLAKELEY,	Middlebush,	Middlebush.
HOWARD SUYDAM CLARKE,	New Brunswick,	69 Carroll Place.
JOHN EDWARD HILL,	Newark,	Newark.
JACKSON JAQUES,	Uniontown,	Uniontown.
BENJAMIN LIPPINCOTT,	Cinnaminson,	56 Albany St.
WILLIAM H. LUSTER, JR.,	Elizabeth,	28 Prospect St.
EUGENE CLIFID MOSS,	Metuchen,	Metuchen.
B. FRANKLIN RANDOLPH,	Elizabeth,	346 Grier Ave.
ARTHUR ELLIOT RUTHERFURD,	Newark,	Newark.
LOUIS FREDERIC RUF,	Freehold,	55 Albany St.
FRANKLIN STODDART SMITH,	Plainfield,	Plainfield.

Names.	*Residences.*	*Rooms.*
CYRUS W. FIELD SPROUL,	Keyport,	172 Burnet St.
FRANCIS STRYKER,	Trenton,	Trenton.
HALSEY T. TICHENOR,	Irvington,	Irvington.
EDWARD THOMPSON WARD,	Newark,	Newark.
FREDERIC THOMPSON WARD,	Newark,	Newark.
HENRY R. L. WORRALL,	Little Washington,	South River.

SPECIAL STUDENTS IN CHEMISTRY.

FIRST YEAR.

Names.	*Residences.*	*Rooms.*
E. PHILLIPS BROWN,	Up-Red-Hook,	69 Albany St.
WM. CAMPBELL CLARK,	Scotland,	Newark.
GEO. B. HURFF,	Hurffville,	81 Bayard St.
GEO. OSMAN WOODS,	Clifton, S.I.,	28 Paterson St.

SECOND YEAR.

Names.	*Residences.*	*Rooms.*
JAMES HOWARD AITKIN,	Trenton,	Trenton.
EDWARD B. DANA, JR.,	Metuchen,	Metuchen.
JAMES MACMULLEN,	New Brunswick,	Suydam St.
CHAS. H. ROGERS,	New Brunswick,	25 Albany St.
JAMES PRICE WARRICK,	Glassboro,	81 Bayard St.
WASHINGTON WILSON,	Metuchen,	Metuchen.

Recapitulation.

NEW JERSEY,	95
NEW YORK,	37
CONNECTICUT,	3
PENNSYLVANIA,	2
MICHIGAN,	2
KENTUCKY,	1
INDIA,	2
IOWA,	1
SCOTLAND,	1
TOTAL,	144

SUMMARY.

RESIDENT GRADUATES,	6
CLASSICAL DEPARTMENT.	
SENIORS,	26
JUNIORS,	23
SOPHOMORES,	22
FRESHMEN,	16
SCIENTIFIC DEPARTMENT.	
SENIORS,	10
JUNIORS,	9
SOPHOMORES,	4
FRESHMEN,	17
SPECIAL STUDENTS IN CHEMISTRY.	
FIRST YEAR,	4
SECOND YEAR,	6
SPECIAL STUDENT IN AGRICULTURE.	
FIRST YEAR,	1
TOTAL IN COLLEGE,	144

Calendar.

1880-'81.

1880. JUNE 23, Wednesday: Commencement. Vacation.
" SEPTEMBER 21, Tuesday: First Session begins.
" SEPTEMBER 21, Tuesday: Examinations for admission.
" DECEMBER 22, Wednesday: First Session ends. Vacation.
1881. JANUARY 6, Thursday: Second Session begins.
" JANUARY 27, Day of Prayer for Colleges.
" APRIL 6, Wednesday: Second Session ends. Vacation.
" APRIL 14, Thursday: Third Session begins.
" MAY 23, 24, Monday and Tuesday: Senior Examinations.
" JUNE 17, 18, Friday and Saturday: Examinations for admission.
" JUNE 19, Sunday: Baccalaureate Sermon by the President.
" JUNE 21, Tuesday: Meeting of Alumni: Exercises of the Literary Societies. Junior Exhibition in the Evening.
" JUNE 22, Wednesday: Commencement. Vacation.
" SEPTEMBER 20, Tuesday: First Session begins.
" SEPTEMBER 20, Tuesday: Examinations for admission.
" DECEMBER 21, Wednesday: First Session ends. Vacation.
1882. JANUARY 5, Thursday: Second Session begins.

Classical Department.

1. *Conditions of Admission.*

Every applicant for admission must submit to the President proper testimonials of a good moral character.

Examinations for admission to the College will be held on Friday and Saturday before Commencement, (June 17th and 18th,) beginning at 9 o'clock A. M., in the President's room. All who can do so are desired to present themselves on Friday. Applicants for admission may also be examined on Tuesday, September 20th, at the same hour and place.

Candidates for advanced classes must sustain a satisfactory examination upon the subjects previously studied by the class which they propose to enter, as well as those required for admission into the Freshman Class. Under this regulation students are admitted at any time during the Collegiate year.

Students who desire to pursue selected branches of study may do so, if properly prepared to pursue them with the regular classes. Special provision is made for such students in the Scientific Department.

The following, or a full equivalent, are the requirements for admission to the Freshman Class:

LATIN—Andrews' and Stoddard's or Harkness' Grammar; Fischer's Manual of Latin Grammar and Composition—First Part; Cæsar's Gallic War; Six Books of the Æneid; Cicero's Orations against Catiline, on the Manilian Law, for the Poet Archias, and for King Deiotarus.

GREEK—Hadley's Greek Grammar, including Prosody; Xenophon's Anabasis—three books; Arnold's First Greek Book, entire; Three books of Homer's Iliad, and twenty sections of Arnold's Greek Prose Composition, or its equivalent.

ENGLISH AND MATHEMATICS.—Arithmetic complete, including the Metric system; Algebra to Quadratic Equations, at and after the examination of 1882 through Quadratic Equations; Plane Geometry —three books of Wentworth or an equivalent, including Exercises; Ancient and Modern Geography; English Grammar and Spelling; History of the United States.

GERMAN.—Ahn's Grammar, (Fischer's Edition), or its equivalent. Any condition in this subject must be made up before the close of the Sophomore year.

2. *Suggestions in regard to Preparation.*

LATIN.—In preparing in Latin, the student should give more attention to the prose than the poetry of the language.

Besides the common rules he should be thoroughly drilled in the use of the moods and tenses, the consecution of tenses, the gerundive construction, etc., and should be taught to analyze the sentence into its different parts.

Fischer's Elements of Latin Grammar and Reader should be used in preparation as the best book to give thorough instruction in the elements of Latin.

LATIN COMPOSITION.—It is recommended that the student should begin the study of the language with Fischer's Manual, and that he should have as much exercise in writing Latin as possible.

PRONUNCIATION.—The system followed is the Roman, as given in Fischer's Manual. For correctness of pronunciation, the rules of prosody are necessary to those who have not been thoroughly accustomed to the correct sound of the Latin words.

GREEK.—The examination will be: I. In Hadley's Grammar. The applicant must be thoroughly familiar with the leading principles of the whole Grammar, including accent and quantity.

II. In Arnold's First Greek Book. The whole of this is required.

III. In pronunciation the accent must be followed in prose; but in poetry, regard will be had only to quantity.

While Arnold's First Greek Book, Xenophon's Anabasis (three books), and Homer's Iliad (three books), are the basis of examination, other authors will be taken instead, provided the pupil can pass upon a *full* equivalent.

MATHEMATICS.—Attention is especially called to the Metric System of Weights and Measures, a practical knowledge of which is indispensable, since it is *used* in the class room, and to the subject of Radicals, in which a deficiency of preparation is most frequently apparent.

In preparing in Mathematics the student should not only have a thorough knowledge of the subjects required, *but he should acquire a proficiency and readiness in the application of the principles, and to that end the solution of numerous and varied examples is earnestly recom-*

mended. It is also desirable to cultivate habits of neatness and order in the presentation of work on the blackboard.

ENGLISH GRAMMAR AND GEOGRAPHY.—A good knowledge of *English Grammar* in all its parts is required for admission. This is presupposed in the studies that follow. The candidate is also examined in spelling, reading and punctuation. Ancient Geography should be studied in connection with the Classical Authors; and Modern Geography, including both Descriptive and Physical, is an essential requisite.

HISTORY.—Candidates for admission are examined in the History of the United States, with special reference to the colonization of the several States, the forms of government which existed previous to the Revolution, the causes and principal events of the Revolution, the period of the Confederation, the establishment of the Federal Constitution, with the general history subsequent to that event.

Seavey's Goodrich's History of the United States is considered the best book to use in preparation; and it will be taken as the standard for examination. This work is also recommended to the Public Schools of New Jersey by the State Superintendent of Public Instruction. A full equivalent, however, will be accepted; more regard being paid to the quality of the preparation than to the particular book used.

3. *Course of Instruction.*

The COURSE OF INSTRUCTION occupies four years, with three terms or sessions in each year.

The following is a scheme of the studies of the course. This scheme is not always strictly followed, either in the order of studies or the use of the particular text-books named; but it furnishes an exhibit of the amount of work required of students during the four years, and may indicate to candidates for advanced standing the equivalents which will be accepted from them:—

FRESHMAN CLASS.

Exercises during the year in Composition and Declamation.

Bible Class Sabbath morning.

FIRST TERM.

1. *Latin*—Livy; Roman History. 2. *Greek*—Lucian's Timon (three books); Wilkins' Elementary Greek Exercises. 3. *Mathematics*—Wentworth's Geometry, from Book IV. 4. *Natural History*—Dalton's Physiology; Lectures. 5. *Rhetoric*—D. J. Hill; Lectures. 6. *French.*

SECOND TERM.

1. *Latin*—Livy; Composition; Roman History. 2. *Greek*—Demosthenes' Olynthiac Orations, 2d and 3d, and one Philippic of Demosthenes; Wilkins' Elementary Greek Exercises. 3. *Mathematics*—Wentworth's Geometry completed; Loomis' Algebra from Quadratic Equations. 4. *Natural History*—Zoology. 5. *English Literature*—Lounsbury's History of the English Language. 6. *Elocution*—Lectures. 7. *French*.

THIRD TERM.

1. *Latin*—Horace; Composition. 2. *Greek*—Thucidides, one book; Wilkins' Elementary Greek Exercises completed. 3. *Mathematics*—Loomis' Algebra completed. 4. *Natural History*—Gray's Botany. 5 *English Literature*—Chaucer's Canterbury Tales; Morley's Manual of English Literature. 6. *French*.

SOPHOMORE CLASS.

Exercises during the year in Composition and Declamation.
Bible Class Sabbath morning.

FIRST TERM.

1. *Latin*—DeOfficiis; Latin Composition; Mythology. 2. *Greek*—Greek Lyric Poets, Tyler; Wilkins' Greek Prose Composition; Lectures on Greek Literature. 3. *Mathematics*—Trigonometry, Plane and Spherical, with application to Surveying. 4. *Modern History*—Freeman's Outlines, with Written Essays. 5. *English Literature*—Morley's Manual, Milton, Shakespeare.

SECOND TERM.

1. *Latin*—Tacitus; Plautus; Antiquities; Composition. 2. *Greek*—Demosthenes on the Crown, Tyler or D'Oege; Wilkins' Greek Prose Composition; Lectures on Numismatics, with Illustrations. 3. *Mathematics*—Trigonometry completed, Analytic Geometry, Bowser. 4. *Modern History*—Freeman's Outlines with Written Essays. 5. *English Literature*—Essays in Literary Criticism.

THIRD TERM.

1. *Latin*—Horace; Juvenal; Composition. 2. *Greek*—Aristophanes' Birds; Wilkins' Greek Prose Composition completed; Greek Antiquities; Lectures on the History and Deciphering of Manuscripts, with Illustrations. 3. *Mathematics*—Analytic Geometry completed. 4. *Constitutional History of England*—Creasy. 5. *English Literature*—Essays on Literary Criticism.

JUNIOR CLASS.

Exercises during the year in Composition and Original Declamation. Bible Class Sabbath morning.

FIRST TERM.

1. *Natural Philosophy*—Deschanel. 2. *Chemistry*—Lectures on Inorganic Chemistry (Barker). 3. *Mental Philosophy*—Porter's Elements of Intellectual Philosophy and Lectures. 4. *German and French.* 5. *Elective Studies*—One of which is to be pursued. 1. *Latin*—Quintilian. 2. *Mathematics*—Differential and Integral Calculus, Bowser. 3. *Analytical Chemistry*—Laboratory Practice and Lectures on the Theory of Analysis. 4. *English.* Sweet's Anglo-Saxon Reader; Spencer, Shakespeare, Dryden.

SECOND TERM.

1. *Natural Philosophy*—Deschanel. 2. *Chemistry*—Lectures on Inorganic Chemistry and Mineralogy. 3. *Mental Philosophy*—Porter's Elements of Intellectual Philosophy and Lectures. *Logic*—Thompson's Outlines of the Laws of Thought. 4. *German and French.* 5. *Elective Studies*—One of which is to be pursued. 1. *Greek*—Plato's Phædo, Wagner's Edition; Wilkins' Manual of Composition. 2. *Mathematics*—Calculus continued. 3. *Analytical Chemistry*—Laboratory Practice and Lectures on the Theory of Analysis.

THIRD TERM.

1. *Astronomy*—Newcomb and Holden. 2. *Chemistry*—Lectures. 3. *History of Civilization*—Guizot. 4. *German and French.* 5. *Elective Studies*—One of which is to be pursued. 1. *Latin.* 2. *Mathematics*—applications of the Calculus. 3. *Analytical Chemistry*—Laboratory Practice and Lectures on the Theory of Analysis.

SENIOR CLASS.

Exercises during the year in Composition and Original Declamation. Bible Class Sabbath morning.

FIRST TERM.

1. *Chemistry*—Lectures on Organic Chemistry and Chemical Physics. 2. *Political Economy*—Bowen, and Perry; Lectures. 3. *Moral Philosophy*—Calderwood's Handbook; Lectures. 4. *Elective Studies*—One of which is to be pursued. 1. *Greek*—Buchhols' Anthology; Trendelenberg's Elementa Logices Aristoteleæ; Wilkins' Manual of Composition. 2. *Astronomy*—Loomis' Practical Astronomy, and Observatory work. 3. *Modern Languages*—German. 4. *Analytical Chemistry*—Laboratory Practice and Lectures on the Theory of Analysis. 5. *Hebrew*—Extra.

SECOND TERM.

1. *Chemistry*—Lectures on Organic Chemistry and Chemical Physics. 2. *International Law*—Woolsey; Lectures. 3. *Constitution of the United States*—Pomeroy and Cooley. 4. *Moral Philosophy*—Butler's Analogy. 5. *Elective Studies*—One of which is to be pursued. 1. *Latin*. 2. *Astronomy*—Loomis' Practical Astronomy, and Observatory work; Lectures. 3. *Modern Languages*—German. 4. *Analytical Chemistry*—Laboratory Practice, and Lectures on the Theory of Analysis. 5. *Hebrew*—Extra.

THIRD TERM.

1. *Geology*—Lectures. 2. *Architecture*—Lectures. 3. *Moral Philosophy*—Butler's Analogy. 4. *Elective Studies*—One of which is to be pursued. 1. *Greek*—Porphyry's Isagoge and Aristotle's Categoriæ, Bekker's Edition. Lectures on the Organon. 2. *Modern Languages*—German. 3. *Analytical Chemistry*—Laboratory Practice, and Lectures on the Theory of Analysis. 4. *Astronomy*—Practical Astronomy continued. 5. *Hebrew*—Extra.

4. *Remarks on the Course of Study.*

In the above schedule all the Studies up to the close of the Sophomore year are obligatory, and are intended to be of such a character as will be equally desirable whatever subsequent profession or career is chosen. During the Junior and Senior years some subjects are required of all regular students, while several others are made elective, one at least of which must be pursued.

MORAL PHILOSOPHY AND THE EVIDENCES OF CHRISTIANITY.

Moral Philosophy is taught during the Senior year by the study of text-books, by comments and criticisms, and by lectures. A course of Biblical Instruction continues throughout the entire four years. A Sabbath morning Bible lesson, which all the students attend, is devoted to the critical study of the Scriptures—especially the Greek New Testament. Hebrew is taught as an extra study during the Senior year.

LANGUAGES.

Latin.—Prose authors of the Classical period are read first, and the thorough grammatical drill is given upon the language in its most correct form. Next a Prose Author of the post-classical period is read. Then the poets, at least one in each literary period, are taken up in their chronological order. The course is concluded with a rhetorical and a philosophical treatise. Exercises in Latin Composition are continually required of the student.

Greek.—The Classical Greek authors are read during the entire Freshman and Sophomore years, one term of the Junior, and two terms of the Senior year. The course is intended to embrace at least one complete treatise from a leading author belonging to each period from Homer to Lucian. And while the amount read is distinctly indicated by the Catalogue, it is the purpose to vary the authors, or portions from the same author, every year. Term examinations are entirely in writing. They are from printed slips, different for each pupil, containing the passages for translation, with accompanying questions.

Promising students are encouraged to take special courses of study, in addition to the regular class work; and private instruction, supplemented by an efficient Library, is constantly given without charge. Assistance is also offered in Chaldee, Arabic and Sanskrit. The following books of reference are recommended; Smith's Classical Dictionaries, 6 vols; Jelf's Greek Grammar; Becker's Charicles; Liddell and Scott's Lexicon, 6th Oxford Edition.

English Language and Literature.—The course in English embraces the optional study of Anglo-Saxon and early English with the required study of the history of the language, in which Sweet's Anglo Saxon Reader and Lounsbury's History of the English Language are used as text books. The History of English Literature is studied in connection with the principal English Classics—Chaucer, Milton, &c., Morley's Manual of English Literature being used as the text book. Essays in literary criticism are required during the Sophomore year and course of reading prescribed.

French and German are studied during the Junior and Senior years, and while the correct use and pronunciation of the spoken languages are taught, special stress is laid upon the ability to read with fluency the standard authors. The Seniors have frequent practice in German conversational exercises.

Hebrew.—This language is taught as an extra study during the Senior year to those who desire it.

MATHEMATICS, NATURAL PHILOSOPHY AND ASTRONOMY.

The required studies in Mathematics include Geometry, with problems and exercises in Geometrical invention; Algebra, Plane and Spherical Trigonometry, with application to problems in Surveying and Astronomy, and Analytic Geometry. The last embraces the construction of equations and the geometrical interpretation of their roots, the production of equations from plane loci, and the

properties of Conic Sections. These studies are pursued during the first two years of the course.

Those who wish to become acquainted with the more elegant and productive methods of Mathematical investigation have an opportunity to do so by electing in the Junior year the study of the Calculus and its applications. This branch considers quantity in a state of change, and shows the nature and use of infinitesimals in investigating the relations of quantities.

Care is taken throughout that every principle receives a rigorous demonstration and that applications are made of it as far as practicable. No principle is thoroughly learned by the student until he can apply it.

Natural Philosophy and Astronomy are studied through the Junior year by both the Classical and Scientific Sections. These studies are accompanied with frequent Lectures and are amply illustrated by the use of an extensive supply of apparatus and instruments.

The Daniel S. Schenck Observatory of Rutgers College is supplied with a 6½ inch Equatorial Telescope, a Transit circle, Sidereal clock, and other instruments for astronomical work.

The study of Theoretical and Practical Astronomy, with the use of the instruments of the Observatory, is optional in the Senior year.

CHEMISTRY AND NATURAL HISTORY.

The course in this department begins with the Freshman year, in which the leading subjects of Natural History are taught. Subsequently the instruction is by lectures, and covers the ground of Chemistry, Chemical Physics, Technology and Geology. The instruction is constantly accompanied by experiments and illustrations. And the extensive collections of minerals, fossils, geological specimens, shells, and other objects of Natural History are arranged for study in the Museum of Geological Hall, and the rooms are opened at stated times.

In the Junior and Senior years students may elect a course in Analytical Chemistry with Laboratory Practice and Lectures. The experimental studies in this department have proved remarkably attractive and profitable to those intending to devote themselves to Law or Medicine, or to business pursuits.

During the first term of the Junior year Blowpipe Analysis is taught. The students after learning the necessary manipulations for blowing glass, repeat the experiments in Nason and Chandler's Blowpipe Analysis. When they have become conversant with the

various reactions, they proceed to actual analysis, or detection of substances by the blowpipe. Commencing with substances containing two or three elements, they are in a short time able to analyze complex compounds. Toward the end of the course, lectures and recitations are held.

At the examination, the student is given substances to analyze, and his standing is determined by the correctness of his analysis.

After analyzing thirty to forty substances by the blowpipe, the student passes into the larger Laboratory, where he begins his studies in Qualitative Analysis. Here in a similar manner he learns the reactions, makes the tests, and proceeds rapidly from analysis of simple substances to the most complex. The theory of analysis is minutely explained in the lectures on the subject. Quantitative Analysis now follows. The student having learned the means of detecting the constituents of a substance, proceeds to the determination of their *amount*. He first analyzes pure salts of known composition, so that his results may be compared with the theoretical percentages. Having obtained a sufficient accurracy in his work, he analyzes substances of unknown composition as minerals, metals, ores, waters, urines, poisons, fertilizers, coals, etc. Having thus become thoroughly acquainted with the theory and practice of analytical chemistry, the student undertakes original experimental investigations in the various branches of pure and applied chemistry.

RHETORIC AND METAPHYSICS.

Elocution.—During the Freshman year lectures are delivered on the general principles of elocution, and a practical application of these principles is made by appropriate exercises in Declamation, in which the members of the class are carefully drilled. In addition to this there are exercises in Oratory by all the students, both in the class-room and in the College Chapel. The Freshman and Sophomore classes use selected pieces, and the Juniors and Seniors are required to deliver original orations.

In the department of Rhetoric begun during the Freshman year an effort is made to teach the principles of Composition, not as laid down in mechanical rules, but as springing from psychological laws and relations. Ideas presented in accordance with various mental requirements and influences are shown to contain the true philosophy of rational and effective discourse. And illustrative references to the Masterpieces of Oratory, and to other forms of the best English Classical Literature are freely given. Essays are required throughout the entire course.

Mental Philosophy—Porter's Elements of Intellectual Philosophy is employed as a text-book during the first term and a part of the second term of the Junior year. The characteristic doctrines of the Distinctive Schools in Ancient and Modern Philosophy are presented in a course of Lectures upon the representative thinkers in these schools. Much attention is paid to the most important Philosophical and Metaphysical questions at issue among living speculators. And the results of recent critical discussions together with comments are interspersed with the daily recitations. The student is urged to become familiar with some of the works of Plato translated by Jowett, of Locke, Berkeley, Reid, Dugald Stewart, Thomas Brown, Hamilton, Coleridge, J. S. Mill, Herbert Spencer; and with the summaries of the systems of Kant, Fichte, Shelling, Hegel, and of others found in Ueberweg's History of Philosophy.

LOGIC is taught by a text-book, but special care is taken to enforce a practical application of logical formulas in the resolution of arguments, and the detection of sophistries. To this end illustrative examples are drawn from different authors and much oral instruction is given.

HISTORY, POLITICAL ECONOMY AND CONSTITUTIONAL LAW.

The scheme of studies in this department includes an outline sketch of Modern History, beginning with the downfall of the Roman Empire and tracing the formation and growth of modern states; a view of the philosophy of history as given by Guizot; and a study of the leading principles of Political Economy, Constitutional Law (with special reference to the Constitutions of Great Britain and the United States) and International Law. Instruction is given by text-books, lectures and conversational discussions. The following among others, are recommended to students as books of reference: Hallam, and Stubbs, on the English Constitution; the Federalist, Story, Kent, Jameson, Curtis, and Von Holst, on the Constitution of the United States; Kent, Woolsey, Wheaton, and Phillimore, on International Law; Adam Smith (Roger's edition), Mill, Fawcett, Cairnes, and Carey, on Political Economy. These studies begin in the Sophomore year and are continued during portions of the two following years.

Scientific Department.

RUTGERS SCIENTIFIC SCHOOL.

BY ACT OF THE LEGISLATURE CONSTITUTED THE STATE COLLEGE FOR AGRICULTURE AND THE MECHANIC ARTS.

BOARD OF VISITORS.

(APPOINTED BY THE GOVERNOR.)

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OFFICERS:

Hon. WILLIAM PARRY, *Chairman.*

GEORGE H. COOK, *Secretary.*

1. Conditions of Admission.

Every applicant for admission must be sixteen years of age, and must submit to the President proper testimonials of a good moral character. If an applicant for a State Scholarship, he must also present to the President a certificate of appointment from the County Superintendent.

Examinations for admission will be held on the same days as for the Classical Department, viz.: on the Friday and Saturday preceding Commencement, June 17th and 18th, beginning at 9 o'clock A. M., in the President's room. Applicants for admission may also be examined on Tuesday, September 23d, at the same hour and place.

Students may enter an advanced class either at the beginning of the College year or at other times, on condition that they sustain a satisfactory examination both on the preliminary studies and on those already passed over by the class which they propose to enter.

Provision is made for such students as wish to devote themselves to special subjects, if they are prepared to go on profitably with the regular classes in those subjects.

The following are the subjects on which those desiring to enter the Freshman class of the Scientific Department are examined. As they are all such as can be acquired in our best common schools, it is insisted that the preparation in them shall be thorough and complete.

1. Arithmetic complete, including the Metric system. 2. Algebra, to Series. 3. Plane Geometry. The *whole* of Plane Geometry will be required. 4. English Grammar—including spelling. 5. Descriptive Geography. 6. Physical Geography. 7. History of the United States.

In preparing the student for this course, it is recommended that he be drilled thoroughly in Arithmetic, as a clear understanding of its simple elementary and practical principles is essential to a good Mathematician. His preparation in Algebra to Series should also be as complete. In addition to understanding the PRINCIPLES of the science he must fix them in his memory, and learn their bearing and utility, and for this reason he must pay great attention to the solution of practical examples. What is needed is ability to solve ordinary examples with facility and explain them thoroughly.

Attention is specially called to the Metric Systems of Weights and Measures, a practical knowledge of which is indispensable, since it is *used* in the class-room.

2. *Courses of Study.*

Four distinct courses of study are included in the Schedule which follows:

I. A COURSE IN CIVIL ENGINEERING AND MECHANICS.
II. A COURSE IN CHEMISTRY AND AGRICULTURE.
III. A SPECIAL COURSE IN CHEMISTRY.
IV. A SPECIAL COURSE IN AGRICULTURE.

During the first and second years the studies of the two full courses are the same, and are designed to furnish a suitable introduction to the pursuit of the higher branches in either.

During the last two years the subjects of Higher Mathematics, Mechanics and Engineering in the Engineering course are replaced by Analytical Chemistry, practice in the Laboratory, and Agriculture in the other. The remaining subjects are pursued by the students of both courses together.

The course of study for the first two years in this Department is arranged so as to be complete in itself. It is especially designed to meet the wants of those who cannot take the entire four years' course, but who desire to fit themselves as Land Surveyors. Students leaving at this period of the course, receive from the Faculty a certificate of their attainments.

Students in this Department have daily practice in Draughting, with exercises and problems in Geometrical Constructions, in Descriptive Geometry, Topographical, Mechanical and Architectural Drawing, and in Graphical Statics. Several students who had acquired sufficient skill obtained positions as draughtsmen in various offices in the City during their course.

SPECIAL STUDENTS are received, and allowed to take any part of the above course, provided their previous education is sufficient; and particular provision is made for them, especially in the Laboratory, in Mathematics, Surveying and Draughting.

THE SPECIAL COURSES in Chemistry and Agriculture occupy two years. The Laboratory is open from 9 A. M. until 5 P. M.

Students are instructed in Blowpipe Analysis; Determinative Mineralogy; Analysis of Ores, Minerals, Coals, Waters, Technological Products, etc.; Assaying; Analysis of Soils, Fertilizers, Agricultural Products and Foods; Volumetric Analysis of Gases; Detection of Poisons; Analysis of Urine and Animal Products and Microscopical examinations. The course of study depends to some extent upon the student's future pursuit in life.

MILITARY TACTICS.—In accordance with the requirements of the Law, provision is made in this Department for the study of Military Tactics.

SPECIAL PROVISION IS ALSO MADE FOR STUDENTS WHO DESIRE, AFTER COMPLETING THE REGULAR COURSE OF STUDY, TO TAKE POST-GRADUATE STUDIES.

In connection with the instruction in Agriculture in this Department, the Trustees maintain an extensive model farm, designed to illustrate the principles of agriculture, and also to test by experiment the value of different systems. It is under the charge of the Professor of Agriculture, and *every Wednesday* during term time will be devoted to giving upon the farm explanations of the experiments and their results, to the students in agriculture, as well as to any farmers who may desire to avail themselves of this privilege.

3. Organization.

This department of the College has been designated by the Legislature of New Jersey, in accordance with the law of Congress:

THE STATE COLLEGE FOR THE BENEFIT OF AGRICULTURE AND THE MECHANIC ARTS.

Under this law, a certain number of students from the State of New Jersey are received into this department of the College, and educated free of expense for tuition. The law also provides for the appointment by the Governor of a Board of Visitors, two from each Congressional District, who possess general powers of supervision and control. The State pupils are admitted on the recommendation of the Superintendent of Schools in each county. They are distributed among the counties in proportion to their population as follows:

STATE SCHOLARSHIPS.

ATLANTIC,	1	MIDDLESEX,	2
BERGEN,	1	MONMOUTH,	2
BURLINGTON,	3	MORRIS,	2
CAMDEN,	2	OCEAN,	1
CAPE MAY,	1	PASSAIC,	2
CUMBERLAND,	1	SALEM,	1
ESSEX,	6	SOMERSET,	1
GLOUCESTER,	1	SUSSEX,	1
HUDSON,	6	UNION,	2
HUNTERDON,	1	WARREN,	1
MERCER,	2		
			40

COURSES OF STUDY.

FRESHMAN YEAR.

Exercises during the year in Composition and Declamation. Bible Class Sabbath morning.

FIRST TERM.

1. *French.* 2. *Mathematics*—Loomis' Algebra. from Series. 3. *Natural History*—Dalton's Physiology; Lectures. 4. *Rhetoric*—D. J. Hill; Lectures. 5. *Draughting*—Practical Geometry, plane. 6. *English Literature*—History.

SECOND TERM.

1. *French.* 2. *Mathematics*—Loomis' Geometry, from Book IV. 3. *Natural Philosophy*—Lectures. 4. *Elocution*—Lectures. 5. *English Literature*—Lounsbury's History of the English Language; Morley's English Literature. 6. *Draughting*—Coloring, Topographical Signs, &c.

THIRD TERM.

1. *French.* 2. *Mathematics*—Loomis' Trigonometry, Plane and Spherical. 3. *Natural History*—Gray's Botany; Lectures. 4. *English Literature*—Chaucer; Lectures. 5. *Draughting*—Mapping, with sections, &c.

SOPHOMORE YEAR.

Exercises during the year in Composition and Declamation. Bible Class Sabbath morning.

FIRST TERM.

1. *Surveying*—Murray's Manual; Field Exercises and Mapping. 2. *Descriptive Geometry*—Church. 3. *Chemistry*—Lectures. 4. *Mental Philosophy*—Porter's Elements of Intellectual Philosophy. 5. *History*—Freeman's Outlines. 6. *Draughting*—Practical Geometry, solid.

SECOND TERM.

1. *Descriptive Geometry*—Church; Construction of Problems; Navigation and Railroad Curves. 2. *Chemistry*—Lectures. 4. *Mental Philosophy*—Porter's Elements of Intellectual Philosophy. 4. *History*—Freeman's Outlines. 5. *Draughting*—Intersection of Surfaces, &c.

THIRD TERM.

1. *Leveling and Railroad Curves*—Henck's Field Book; Field Practice, and Plotting. 2. *Shades, Shadows and Perspective*—Church; Construction of Problems. 3. *Chemistry*—Lectures. 4. *Mental Philosophy*—Porter's Elements of Intellectual Philosophy. 5. *History*—Creasy's Constitutional History of England. 6. *Draughting*—Linear Perspective, &c.

JUNIOR YEAR.

COURSE IN CIVIL ENGINEERING AND MECHANICS.

Exercises during the year in Composition and Original Declamation.
Bible Class Sabbath morning.

FIRST TERM.

1. *German.* 2. *Analytical Geometry*—Bowser. 3. *Natural Philosophy*—Deschanel. 4. *Political Economy*—Bowen and Perry. 5. *Draughting*—Lettering, &c.

SECOND TERM.

1. *German.* 2. *Analytical Geometry, completed; Differential and Integral Calculus*—Bowser. 3. *Natural Philosophy*—Deschanel. 4. *Constitutional History of the United States*—Text-book (Andrews), and Lectures. 5. *Draughting*—Shading, &c.

THIRD TERM.

1. *German.* 2. *Calculus completed.* 3. *Astronomy*—Newcombe and Holden. 4. *History of Civilization*—Guizot. 5. Draughting—Construction.

JUNIOR YEAR.

COURSE IN CHEMISTRY AND AGRICULTURE.

Exercises during the year in Composition and Original Declamation.
Bible Class Sabbath morning.

FIRST TERM.

1. *German.* 2. *Analytical Chemistry*—Text-book, with Laboratory Practice and Lectures on the Theory of Analysis. 3. *Agriculture*—Lectures at the Farm. 4. *Natural Philosophy*—Deschanel. 5. *Political Economy*—Bowen and Perry. 6. *Draughting*—Lettering, &c.

SECOND TERM.

1. *German.* 2. *Analytical Chemistry*—Text-book, with Laboratory Practice and Lectures on the Theory of Analysis. 3. *Agriculture*—Lectures. 4. *Natural Philosophy*—Deschanel. 5. *Constitutional History of the United States*—Text-book (Andrews), and Lectures. 6. *Draughting*—Shading, &c.

THIRD TERM.

1. *German.* 2. *Analytical Chemistry*—Text-book, with Laboratory Practice and Lectures on the Theory of Analysis. 3. *Agriculture*—Vegetable Physiology. 4. *History of Civilization*—Guizot. 5. *Draughting*—Constructions. 6. *Mineralogy.*

SENIOR YEAR.

COURSE IN CIVIL ENGINEERING AND MECHANICS.

Exercises during the year in Composition and Original Declamation. Bible Class Sabbath morning.

FIRST TERM.

1. *Mechanics*—Tate, or Wood. 2. *Engineering*—Mahan. 3. *Chemistry*—Lectures on Organic Chemistry and Chemical Physics. 4. *Moral Philosophy*—Calderwood's Handbook. 5. *Draughting.* Machinery and Architecture.

SECOND TERM.

1. *Engineering*—Mahan. 2. *Mechanics*—Tate, or Wood, Bridge Building, Wood; Intermediate Analysis. 3. *Chemistry*—Lectures on Organic Chemistry and Chemical Physics. 4. *Moral Philosophy*—Butler's Analogy. 5. *Draughting*—Engineering.

THIRD TERM.

1. *Engineering*—Bridge Building and Railway Practice; Geodesy. 2. *Geology*—Lectures. 3. *Moral Philosophy*—Butler's Analogy. 4. *Draughting*—Thesis.

SENIOR YEAR.

COURSE IN CHEMISTRY AND AGRICULTURE.

Exercises during the year in Composition and Original Declamation. Bible Class Sabbath morning.

FIRST TERM.

1. *Mining and Metallurgy.* 2. *Chemistry*—Lectures on Organic Chemistry and Chemical Physics. 3. *Principles of Agriculture*—Lectures. 4. *Laboratory Practice*, and Lectures on the Theory of Analysis. 5. *Moral Philosophy*—Calderwood's Handbook. 6. *Draughting.*

SECOND TERM.

1. *Agriculture*—Its Methods and Products. 2. *Chemistry*—Lectures on Organic Chemistry and Chemical Physics. 3. *Laboratory Practice* and Lectures on the Theory of Analysis. 4. *Moral Philosophy*—Butler's Analogy. 5. *Draughting.*

THIRD TERM.

1. *Agriculture*—Animal Physiology; Care and Management of Domestic Animals. 2. *Geology*—Lectures. 3. *Moral Philosophy*—Butler's Analogy. 4. *Draughting.* 5. *Laboratory Practice* and Lectures on the Theory of Analysis. 6. *Thesis.*

SPECIAL COURSE IN CHEMISTRY.

FIRST YEAR.

FIRST TERM—1. *Inorganic Chemistry.* 2. *Blowpipe Analysis.* 3. *Qualitative Analysis.* 4. *French.* 5. *Chemical Physics.* 6. *Thesis.*

SECOND TERM—1. *Inorganic Chemistry.* 2. *Qualitative Analysis*—Practice and Theory. 3. *Mineralogy.* 4. *Crystallography.* 5. *Chemical Physics.* 6. *French.* 7. Thesis.

THIRD TERM.—1. *Inorganic Chemistry.* 2. *Quantitative Analysis.* 3. *Stoichiometry.* 4. *French.* 5. *Thesis.*

Journal of Travel or Observation.

SECOND YEAR.

FIRST TERM.—*Organic Chemistry.* 2. Quantitative Analysis. 3. Applied Chemistry. 4. Chemical Physics. 5. German. 6. Thesis.

SECOND TERM.—1. Organic Chemistry. 2. Quantitative Analysis. 3. Applied Chemistry. 4. Chemical Physics. 5. Animal Chemistry. 6. German. 7. Thesis.

THIRD TERM.—1. Geology. 2. Assaying. 3. Applied Chemistry. 4. Chemical Physics. 5. Agricultural Chemistry. 6. German. 7. Thesis.

SPECIAL COURSE IN AGRICULTURE.

FIRST YEAR.

FIRST TERM.—1. Algebra. 2. Geometrical Problems. 3. Inorganic Chemistry. 4. Physiology and Zoology.

SECOND TERM.—1. Geometry. 2. Coloring and Topographical Drawing. 3. Analytical Chemistry. 4. Mineralogy. 5. Book-Keeping.

THIRD TERM.—1. Trigonometry. 2. Mapping. 3. Analytical Chemistry. 4. Botany. 5. Farm Accounts.

SECOND YEAR.

FIRST TERM.—1. Surveying. 2. Projections. 3. Natural Philosophy. 4. Study of Domestic Animals. 5. Systematic Agriculture.

SECOND TERM.—1. Navigation and Nautical Astronomy. 2. Architectural Drawing. 3. Physics. 4. Geology. 5. How Crops Grow.

THIRD TERM.—1. Leveling and Road Making. 2. Machine Drawing. 3. Meteorology. 4. Botany. 5. How Crops Feed.

Composition and Declamation throughout the whole course.

The hours of lectures or recitations are four each day, besides work in the Chemical Observatory.

Students who pass their regular examinations in the above subjects, will, at the close of their course, receive certificates of their attainments. And at the end of two or more years further, if they shall have pursued practical agriculture on a farm, and shall then pass satisfactory examinations in prescribed subjects on Agricultural principles and practice before a Board of Examiners of the Scientific School, they shall receive Diplomas in Agriculture.

Examinations.

The classes in both departments are examined at the close of each term. The examinations are partly oral and partly written, and have an important bearing upon the standing of the student in his class.

At the end of the first and third terms, the examinations of the classes of the Scientific Section are held in the presence of the Board of Visitors, who then make their semi-annual visits to the institution.

At the end of the third term, each member of the Graduating Class of the Scientific Section is required to present a thesis on some scientific subject, a copy of which is to be written out upon paper suitable for binding, and deposited in the College Library.

The final examination of the Graduating Classes is held four weeks before Commencement, from which time they are subject only to such duties as are required for their preparation for Commencement.

Graduation.

To all members of the Graduating Class of the Classical Department, in full and regular standing, the Trustees grant diplomas conferring the Academic degree of Bachelor of Arts.

To all members of the Graduating Class of the Scientific Department, in full and regular standing, the Trustees grant diplomas conferring the Academic degree of Bachelor of Science.

To all members of the Graduating Class, in either Department, who have satisfactorily pursued special courses of study, a certificate is granted stating the studies pursued and the attainments made.

To those students who have pursued satisfactorily the studies of the first two years of the Scientific Course, and who desire to leave at that time, a special certificate is granted by the Faculty.

The following regulations have been adopted by the Board of Trustees in regard to the graduating exercises at Commencement.

1. The privilege of speaking at Commencement shall be open without distinction to the Classical and Scientific Sections of the Graduating Class.

2. The graduation honors shall be as follows:

FIRST HONOR—Latin Salutatory.

SECOND HONOR—English Salutatory.

THIRD HONOR—Philosophical Oration.

FOURTH HONOR—Scientific Oration.

If the first honor be awarded to a member of the Scientific Section of the Graduating Class, he shall deliver a German Salutatory.

3. The Valedictory shall be regarded as a *Rhetorical honor*, and shall be awarded to the best writer and speaker in his class (to be determined by his grade in composition and elocution during the Junior and Senior years), provided, that he must have been a member of his class for two years, and have a general grade in scholarship among the best two-thirds.

4. Eleven other speakers shall be chosen, of whom six shall be chosen by grade in scholarship, provided, that in their grade in composition and elocution during their Junior and Senior years they be among the best two-thirds; and five shall be chosen by grade in composition and elocution during their Junior and Senior years, provided, that in their general grade in scholarship they be among the best two-thirds.

DEGREE OF A.M. and M.S.

By resolution of the Board of Trustees, the degrees of A.M. and M.S. will not be conferred after June 1881 in course, but only as the result of examination.

Post-Graduate Studies.

Provision is made for post-graduate courses of study in the following departments:

1. *Moral Philosophy and the Evidences of Christianity.*

Instruction in this department will consist of the History of Ancient and Modern Moral Philosophy, and the critical study of different systems from original sources.

2. *Metaphysics.*

In this department the student will pursue a selected course in the best philosophical authors, and receive carefully prepared criticisms upon them, with the view especially of acquainting himself with the distinctive opinions and influence of the chief representative thinkers of the various schools of philosophy.

3. *Geology and Chemistry.*

In Chemistry, students pursue special studies and undertake experimental investigations in the Analytical Laboratory, under the direction of a professor, upon subjects connected with industrial or professional life.

In Geology and Natural History, the large collections in Geological Hall, are available for extended courses of study, and can be used under the direction of a professor for special study in Geology, Mining, Metallurgy, and the various branches of Engineering.

In Agriculture, the well equipped farm and laboratories give unusual opportunities for advanced studies in this department, and every facility is offered for their use.

4. *Mathematics.*

Instruction will be given in any of the following subjects: Geodesy, with practice; Higher Mathematics (pure); Theoretical and Practical Astronomy; the use of Physical Apparatus.

5. *Greek Language and Literature.*

Instruction will be given in Aristotle's Organon, and other advanced Greek authors, accompanied with a study of the Comparative Grammar of the Indo-Germanic Languages as bearing on Greek.

6. *Modern Languages.*

The course will include Lectures on French Literature; Lectures on German Literature; Lectures on German Etymology, on German Mythology, and on the Phonology and Morphology of the Indo-Germanic Languages, as bearing on German.

7. *Political and Social Science.*

In this department provision is made for instruction in an Advanced Course in Political Economy; in the Constitutional History and Jurisprudence of the United States; in the History of the English Constitution; and in the elements of Roman Law.

These subjects, according to the choice of students, will be arranged in courses of one, two, or three years. Students completing a full course of two years, in any two of the departments, will be entitled to the degree of Bachelor of Philosophy. Students completing a full course of three years, in any three of the departments will be entitled to the degree of Doctor of Philosophy.

Regulations.

Morning prayers are attended in the College Chapel each morning, except Saturday and Sunday, at 8.40 o'clock.

The recitation hours extend from 9 o'clock A. M. to 1 o'clock P. M., during five days of the week.

A Biblical Recitation is held Sabbath morning in the College Chapel at 9.30 o'clock, which all students are required to attend.

A sermon is preached every Sabbath morning in the College Chapel at 10.30 o'clock. Students are required to be present, and also to attend public worship in the afternoon and evening, at such places as their parents or guardians may direct.

No student is allowed to leave the city during term time without permission from his Division Officer.

Recitations are marked on a scale of 100, and the average standing of each student is made up at the end of each term, and sent to his parent or guardian. A mark at examination counts as much as one-third of the term.

If the grade of a student in any term falls below one-half the maximum in one of his studies, he is conditioned in that study, and must be re-examined therein before graduating.

If the general average of any student in any term falls below one-half of the maximum grade, his case must be acted on as the Faculty shall deem necessary.

If any student's grade in any term falls below one-half of the maximum in all his studies, he loses his standing in his class, and is dismissed from College.

If any student is found to be notably deficient in his daily recitations, or at the examination in any of his studies, his case is reported to the Faculty, and such action by way of discipline is taken as may be deemed necessary.

No student can enter an advanced class until all his deficiencies are made up, and if he fails to make up all his deficiencies before the opening of the College year, he is required to go back a year in his course. Examinations for making up said deficiencies, are to be held on the day preceding the opening of College in September.

College Expenses.

Fees.

Tuition, per annum,	$75 00
Incidentals—Janitor, fuel, &c., per annum,	8 00
Reading Room, per annum,	2 00
Admission Fee,	5 00
Graduation Fee,	7 50
Analytical Chemistry, extra, per term,	15 00

Damages are in all cases chargeable to the persons committing them.

Of the above expenses, the admission fees are payable on entrance to the College Treasurer; the incidental expenses are payable at the beginning of the first term, in September; of the tuition fees one-third, viz., $25, is payable within ten days after the beginning of each term.

Students in Analytical Chemistry are charged $15 additional per term, for chemicals and use of Laboratory, which amount must be paid within ten days after the beginning of the term. They are also expected to provide themselves, at their own expense, with the necessary sets of apparatus, which may be obtained from the regular apparatus dealers, or from the Laboratory Supplies department. These sets are retained through the year, but at the end of it if the owners do not wish to keep them, they will be purchased at a

fair price. If proper care has been exercised, a small discount only (about 10 per cent.) from the original cost will be made. All breakage will be charged in full.

BOARD.

Board, with furnished rooms, can be obtained in New Brunswick at the present time for $4 to $7 per week; board without rooms for $2.75 to $5 per week. These prices do not include lights or fuel,—which cost from $3 to $5 per term. Students having the ministry in view can obtain rooms in Hertzog Hall, in the Theological Seminary, free of charge. The rooms are heated and lighted.

The Faculty are empowered to pass such regulations relative to the number of boarders in each house as they think proper; and students shall board only at such places as are approved by them.

By combining in clubs, students are able to reduce somewhat their expense for board.

Beneficiary Aid.

1. *Van Benschoten Fund.*

This fund, the gift of Rev. Elias Van Benschoten, in 1814, amounting to $20,813, was given in trust jointly to the General Synod of the Reformed Church and the Trustees of Rutgers College, to aid in the education of indigent students for the ministry. The students who enjoy the benefits of this fund are appointed by the Trustees of the College on the nomination of the General Synod of the Reformed Church, and receive $150 annually.

2. *Knox Fund.*

This fund, consisting of $2,000, was given by Mrs. Rebecca Knox, of Philadelphia, in 1815, to the Trustees of Rutgers College, the income from it to be expended for the support of one student in the Theological Seminary.

3. *W. P. Smock Fund.*

William P. Smock, of Marlboro, N. J., left by his will, to the Trustees of Rutgers College, the sum of $500, to be invested as a fund, the interest of which should be used to aid in the education of young men for the ministry. This legacy was received in 1859, and has been since that time duly employed for the purpose indicated.

4. *Mandeville Fund.*

In 1865 the Trustees of Rutgers College received from the executor of the will of William Mandeville, of New York City, the sum of $2,000; said sum to be invested, and the income thereof to be applied to the support of a theological student in the College.

5. *Voorhees Fund.*

Abraham Voorhees, of Franklin Park, N. J., bequeathed by his will $26,000 to the Trustees of Rutgers College, the income of which is to be expended in aiding worthy young men who are candidates for the ministry, while pursuing their studies in Rutgers College. A grant of $200 per annum is made to the students thus receiving aid.

6. *State Scholarships.*

The law of the State of New Jersey granting to the Scientific Department of Rutgers College the Agricultural College Endowment, provides for the education of forty State students free of expense for tuition. These scholarships are distributed among the counties in proportion to their population, and the appointments to fill vacancies are made by the County Superintendents. The appointment gives the *right* to a course of instruction of four years in the Rutgers Scientific School.

7. *Board of Education.*

The Board of Education of the Reformed Church grants aid to young men preparing for the ministry in the denomination. The conditions are that the persons receiving aid shall have been members of some Evangelical Church one year, and at the time members of some Reformed Church. The aid may be obtained either while in College, or in the Theological Seminary. At present the amount granted is $150 per annum. Information will be given by Rev. John L. See, D.D., 34 Vesey Street, New York.

8. *Rooms for Students.*

Such rooms in Peter Hertzog Hall as may not be required for the use of the students of the Theological Seminary, are allowed to be occupied by the students of the College and Grammar School who have the ministry in view, and on the same conditions as the members of the Theological Seminary, *i. e.*, free of charge.

Prizes and Honors.

All prizes and honors are open equally to members of the Classical and Scientific Departments, except in cases where prizes are specifically limited to one department by the donor. Each competitor for a prize must sign a written declaration that the essay or other work offered by him is his original and unaided work. They are as follows:

1. Suydam Prize for Composition.

This prize, the gift of James Suydam, Esq., is a gold medal of the value of forty dollars, or that sum in money, and is to be given to the member of the Senior Class who shall write the best English Composition on the subject assigned to the class by the Professor of Rhetoric. Competitors must hand in their compositions on or before April 18th. The student to whom the prize is awarded must copy his composition upon paper furnished by the College, and present it for preservation in the Library before he can receive the prize.

Subject for 1881: "The Relation of Materialism to the French Revolution."

Committee: Rev. Edward B. Coe,
Hon. Woodbridge Strong,
Rev. Peter E. Kipp.

2. Suydam Prize in Natural Science.

This prize, the gift of James Suydam, Esq., is a gold medal of the value of forty dollars, or that sum in money, and is to be awarded to the member of the Senior Class who shall have made the greatest attainments in Natural Science. The examination is upon all the subjects of Natural Science in the College course, and is conducted by the Professors in those subjects. The questions and answers are required to be written.

3. Brodhead Classical Prize.

This prize is the gift of Rev. Dr. Jacob Brodhead, and his son J. Romeyn Brodhead, L.L.D. It is the interest on $500, to be given to the best Senior Classical scholar on the following conditions:

First, "That those who offer themselves as candidates for it shall be subjected to a special examination, at a time to be fixed by the Faculty near to the close of the Senior year."

Second, "That the subject of the examination be a passage or play of some Classical author (not included in the College programme

of Studies), to be selected by the Classical Professors, and to be announced at least one month before the time fixed for the examination."

Third, "A subject for an essay shall be announced at the same time, and the essay shall be given in on the day of examination."

Fourth, "Both the examination and the essay shall be taken into account in the adjudication of the prize. A law copy of the essay of the Prize man shall be handed in by him before the medal is put into his hands, to be preserved among the archives of the College."

Subject for examination for 1881: "Catullus: both as author for examination and subject of essay."

4. Bradley Mathematical Prize.

This prize is given by Hon. Joseph P. Bradley, LL.D., and consists of a valuable Mathematical work, which is to be bestowed on the student of the Senior Class who shall present the best solution of a set of Mathematical problems to be proposed to the class by the Professor of Mathematics before the close of the second term.

5. Myron W. Smith Prizes.

These prizes were founded by Lyndon A. Smith, M. D., of Newark, in the name of his son, Adjutant Myron W. Smith, who was a graduate of the College, and who gave his life in the late war to the cause of his country. They consist of the interest of $500, proportionately appropriated to two medals, one of gold and the other of silver, which are to be awarded respectively to the best and second best speakers of the Sophomore Class. Only those students who shall have pursued, in the College, the regular studies preparatory to the degree of the Bachelor of Arts from the beginning of the Freshman year, shall be allowed to contend for these prizes.

The competition for these medals shall take place at an exhibition to be held on the 22d day of February; on which occasion the eight students of the Sophomore Class who shall be adjudged by the Faculty to be the best speakers of their class, shall deliver declamations, from which number the committee appointed for the purpose shall select the best and second best, to whom the medals shall be awarded. The medals shall be presented at Commencement.

6. Tunis Quick Prize in Spelling and English Grammar.

This prize, the gift of P. Vanderbilt Spader, Esq., of New Brunswick, is the income of $300, at 7 per centum, and is to be presented to that member of the Freshman Class, Classical or Scientific, who shall pass the best examination in Spelling and English Grammar.

The examination is to be conducted in writing by the Professor of English Literature, at as early a day as convenient in the second College term, and under such regulations as the Faculty may from time to time establish.

The prize may be withheld from any or all papers offered, either for want of merit or for failure of proper competition. In case the prize be not awarded in any year, it is to be offered one year later to the members of the same class, on the same conditions as at first.

All regulations as to time, manner and conditions of awarding the prize are subject to change by the Board of Trustees.

7. Peter Spader Prizes in Modern History.

These prizes, the gift of P. Vanderbilt Spader, Esq., are two in number, the income of $400 and $300, respectively, at 7 per centum, and are to be awarded to those members of the Sophomore Class, Classical or Scientific, who shall present the best essays on some subject in Modern History, selected by the Professor of History, with the approval of the Faculty.

The subject is to be announced at the close of the Freshman year, and the competing essays are to be handed in on or before the third Monday in the third term of the Sophomore year.

The committee annually appointed by the Faculty, may decline to award these prizes, or either of them, for want of merit in the essays, or for failure of proper competition. In case the prizes be not awarded in any year, they are to be offered one year later to the members of the same class, on the same conditions as at first.

Successful essays are to be copied on paper selected by the Faculty, and deposited in the College Library, before the writer receives his prize.

All regulations as to time, manner and conditions of awarding the prizes are subject to change by the Board of Trustees.

Subject for 1881: "The Historical origin and growth of the British House of Commons—with special reference to the development of its powers in the Government."

Committee: PROF. W. D. PERRY,
REV. JOHN HART,
P. VANDERBILT SPADER, ESQ.

8. Cook Prize for Mineralogy.

A prize consisting of 100 species of minerals, arranged and assorted in a case, is offered to the member of the Graduating class of 1880, who shall identify and name the largest number of them, fifty being the minimum.

9. Appleton Memorial Prize in Moral Philosophy.

This prize was founded by a gift of $500, from Rev. Samuel E. Appleton in the name of his mother, Mrs. Elizabeth Appleton. It consists of $35—the interest of the above sum, and will be given to the member of the Senior Class who shall pass the best examination in Moral Philosophy.

Subject of Essay: "Moral Obligation; its nature, origin, extent and limitations."

Committee for 1881: Rev. H. F. Smith, D.D.,
Rev. Wm. J. McKnight, D.D.,
Frederick Frelinghuysen, Esq.

10. Wm. Wilson Prize in Mental Philosophy.

This prize consists of $25, given by Rev. F. F. Wilson, and Rev. P. Q. Wilson, in honor of their father, Captain William Wilson, of the New Jersey State Militia. It will be open to competition for students in both the Classical and Scientific Sections who are pursuing the study of Mental Philosophy, and will be bestowed on the one who shall pass the best examination on some work assigned by the Professor of Metaphysics.

Work for 1881: "Berkeley's Principles of Knowledge, Dr. Krauth's Edition, pp. 72–122, and 193–281."

11. Wm. H. Van Doren Prize for the best Essay on Christian Missions.

This prize consists of $20, the gift of Rev. William H. Van Doren, D.D. It is open to competition for members of the Senior and Junior Classes in both Sections; and for members of the Theological Seminary.

Committee for 1881: Rev. John L. See, D.D.,
Rev. Ralph Willis, D.D.,
Stephen H. Thayer, Esq.

12. Junior Exhibition.

Eight members of the Junior Class are chosen each year, in equal numbers from the Peithessophian and Philoclean Literary Societies, who deliver original speeches at an exhibition held on the Tuesday evening preceding Commencement. The selection is made by a committee of three persons, of whom one is chosen by each Society, and a third by the Faculty, and is based upon relative excellence as writers and speakers.

13. Junior Orator Prize.

A prize of $25, the gift of Major M. H. Bright, will be awarded to the Junior orator whose elocution and composition shall be adjudged best by a committee appointed by the Faculty.

Committee for 1881: MAJOR M. H. BRIGHT,
REV. WILLIAM R. DURYEE, D.D.,
REV. J. G. VAN SLYKE.

14. Knickerbocker Prize for Original Research.

A gentleman signing himself "Knickerbocker" offers a prize of $30, (open to all the students of the College and Seminary,) for "ORIGINAL RESEARCH."

This will include the discussion of Historical Topics, the knowledge being drawn from original sources; the discussion of questions in Mental Philosophy, founded on observation of one's own mind; original Mathematical Investigations; discoveries in Analytical and Organic Chemistry, etc.

The award will be made by a committee composed of the Faculty and two Trustees.

Library and Museum.

1. Library.

The Library of the College is open for consultation every day at stated hours during each term. The collection of books, although entirely inadequate to the wants of the Institution, is yet of great value. It has received considerable additions during the past few

years, and no effort will be spared to make it what the Institution requires. Donations to this object, either in money or books, are earnestly solicited.

By the gift of a permanent fund of $1,000 from James Suydam, Esq., the Library is supplied with the leading learned periodical publications in the various departments.

2. Museum and Apparatus.

The Trustees solicit contributions from the friends of the College to the collections of the Museum. It is their wish to increase greatly the present valuable collections by additions in all departments. Donations of specimens illustrating Geology, Mineralogy, Natural History, Coins, Curiosities, and Antiquities, and the Industrial Arts, are earnestly requested. Ample rooms are provided in the new Geological Hall for the proper preservation and display of such specimens. By the kindness of numerous friends, suitable cases have been provided to receive the collections which the College already possesses, and they are now being arranged as rapidly as circumstances will allow. The Museum is open at stated times during each term.

The apparatus of the College for illustrating the various branches of science, is extensive and serviceable. It has been obtained as the wants of the classes demanded, and comprises most of the recent additions to Chemical and Philosophical apparatus. The students in Analytical Chemistry are provided with the requisite facilities for analyzing and assaying. The arrangements for these departments in the building recently erected are of the most ample and convenient description.

Register.

1. Sophomore Exhibition.

MYRON W. SMITH PRIZES FOR ORATORY, FEB. 22, 1880.

LIST OF CONTESTANTS AND PRIZE MEN.

A. B. HAVENS, Jersey City,.....First Prize.
M. T. SCUDDER, Upper Red Hook, N. Y.,.....Second Prize.

W. I. CHAMBERLAIN, Millbrook, N. Y. H. M. LANSING, Brooklyn,.....N.Y.
WM. S. CRANMER,.....Jersey City. J. MORRISON,...Fishkill on Hudson.
CHARLES L. EDGAR, ...Griggstown. R. J. WORTENDYKE,....Jersey City.

2. Junior Exhibition.

ORATORS FOR 1880.

Philoclean Society.	*Peithessophian Society.*
JESSE W. BROOKS,...Cheshire, Conn.	MARTIN W. LANE,.....Neshanic.
GEO. B. FIELDER,...New Brunswick.	L. L. TAYLOR,.....Newark.
H. D. B. MULFORD,....Hudson, N. Y.	C.B.SCHOONMAKER,Stone Ridge,N.Y.
O. P. SCHNEEWEISS,.New Brunswick.	JAMES S. WRIGHT,.....Jersey City.

The Knickerbocker Prize was received by H. D. B. Mulford.

3. Graduating Exercises June 23, 1880.

HONORS.

EGBERT LEFEVRE, Middlebush.....*Latin Salutatory*.....First Honor.
T. W. BAKEWELL, Pittsburg, Pa.,.....*English Salutatory*....Second Honor.
WM. A. DUMONT, Bedminster,.....*Philosophical Oration*,...Third Honor.
BEVIER H. SLEIGHT, Sleight's Burgh..*Scientific Oration*.....Fourth Honor.
H. H. CAMERON, Albany, N. Y.,.....*Valedictory Oration*,Rhetorical Honor.

ORATIONS.

S. VAN NESS, JR.,.....Hudson, N.Y.	C. N. PERLEE,.....New York City.
CHAS. F. CANTINE,...Saugerties, N.Y.	G. W. SCARLET,* South Branch, N.J.
J. L. SUYDAM,..Three-Mile-Run, N.J.	W. D. HASBROUCK, Orangeb'rg, N.Y.
G. D. B. HASBROUCK, Port Ewen, N.Y.	FRED. WEIGEL,...New Brunswick.
N. H. DEMAREST,.....New York City.	C. M. FREEMAN,*...Metuchen, N.J.
EDWIN F. SEE,....Tarrytown, N.Y.	

PRIZES AWARDED.

SENIOR PRIZES.

Brodhead Prize for Classics,.....E. LEFEVRE.
Suydam Prize for Natural Science,.....W. A. DUMONT.
Suydam Prize for Composition,.....E. F. SEE.
Appleton Prize for Moral Philosophy,.....C. M. FREEMAN.
Van Doren Prize for Essay on Missions,.....E. F. SEE.
Bradley Prize for Mathematics.....W. A. DUMONT.

JUNIOR PRIZE.

Wm. Wilson Prize for Mental Philosophy,.....L. L. TAYLOR.
Knickerbocker Prize for best Oration at Junior Exhibition,..... } H. D. B. MULFORD.

*Excused.

SOPHOMORE PRIZES.

Peter Spader Prize in Modern History, (1st),.....J. B. ALDEN.
Peter Spader Prize in Modern History (2d),.....W. S. CRANMER.
Myron W. Smith Prize for Declamation, (1st),.....A. B. HAVENS.
Myron W. Smith Prize for Declamation, (2d),.....M. T. SCUDDER.

FRESHMAN PRIZE.

Tunis Quick Prize for Grammar and Spelling,.....G. Z. COLLIER.

5. Alumni Association.

OFFICERS FOR THE YEAR 1880–81.

P. DUMONT FRELINGHUYSEN, Esq., -	President.
Rev. JACOB WEST, D.D., - - -	Vice Presidents.
Rev. JOHN STEELE, D.D., - - - -	
Hon. N. W. VOORHEES, - - - -	
Rev. JOHN N. JANSEN, - - - -	
J. BAYARD KIRKPATRICK, - - -	Treasurer.
Rev. Dr. JOHN L. SEE, - - - -	Secretary.
ISAAC E. HASBROUCK, A.M., - - -	Biographer.
RUSH VAN DYKE, M.D., - -	Chairman of Standing Committee.
Rev. CHARLES SHEPARD, -	Vice-Chair'n Standing Committee.

VEDDER LECTURER FOR 1882:

Rev. WILLIAM ORMISTON, D.D.,.....New York City.

Former students of the College, whether graduates or not, are earnestly requested to keep the College informed of any change in their address or occupation, of works published, offices held, &c., both to enable the sending of the annual catalogue, and to furnish material for general catalogues, when printed.

It is now proposed to issue the new edition of the general catalogue so soon as sufficient and reliable data can be obtained.

It is desired to secure for the Library of the College a complete set of all the publications of whatever kind, whether periodical, occasional, or issued by any one in connection with the College, or relating to it. A complete collection of *Rutgersensia* would be of great value to the College and its friends.

Grammar School.

Prof. DeWITT T. REILEY, A. M., Rector.

This School prepares boys for the Classical and Scientific departments of the College, for business, or affords a High School course.

In 1870, the Trustees of the College and School erected on the corner opposite the College Campus, a building fitted with all the conveniences required for a school of high grade. The school has been placed under the management of Rev. DeWitt T. Reiley, Latin Professor in Rutgers College. It is his desire, as it is that of the Trustees, that the Institution should maintain its rank as a classical school for the preparation of boys and young men for entrance to *any* college, while adding thereto that initiation into practical and scientific studies which is required in entering the various Technical and Scientific Schools, or in meeting the demands of modern business life. Those interested in knowing how that rank has been maintained, are invited to notice carefully the course of study, based absolutely on the actual work of the past year.

Boys may enter the Primary Department at the age of from six to twelve years. Thence they pass, when fully prepared to do so, into the Fourth class. When graduated from this class, those who desire preparation for college pass through the Third, Second, Lower First, and Upper First classes. Those who complete the full course will be prepared to enter the Freshman class of any college and even, with summer study, the Sophomore class of most colleges. Those who intend to enter a Scientific school, or business, take the B, A, and H Scientific classes.

FACULTY.

LATIN,

Rev. DeWITT TEN BROECK REILEY, A.M., RECTOR.

MATHEMATICS AND BOOK-KEEPING,

WILLIAM E. BISSELL, (State Normal School.)

NATURAL SCIENCES AND GRAPHICS,

EDWARD A. REILEY, M.S., (Rut. Coll.)

GREEK AND HISTORY,

JOHN HEATON, A.B., (St. Lawrence Univ.)

LATIN AND ENGLISH GRAMMAR,
EGBERT LEFEVRE, A.B., (Rut. Coll.)

GERMAN,
GUSTAVUS FISCHER, LL.D.

FRENCH,
CHARLES DUCROQUET, (Academie de Paris.)

PRIMARY DEPARTMENT,
MISS S. E. VEGHTE, (State Normal School.)

PENMANSHIP,
UNDER DIRECTION OF W. E. BISSELL.

ELOCUTION,
H. H. CAMERON.

EXAMINERS.

GREEK,
WM. H. CAMPBELL, D.D., LL.D., President of Rutgers College.

LATIN,
PROF. GUSTAVUS FISCHER, LL.D., Author of the Latin Series.

MODERN LANGUAGES,
CARL MEYER, D.D., Prof. of Modern Languages in Rut. Coll.

HISTORY,
GEORGE W. ATHERTON, A.M., Prof. of History in Rut. Coll.

MATHEMATICS,
ISAAC E. HASBROUCK, A.M., Prof. of Mathematics Rut. Coll.

ENGLISH GRAMMAR AND GEOGRAPHY,
REV. DEWITT T. REILEY, RECTOR.

COURSE OF STUDY.

PRIMARY DEPARTMENT.

Arithmetic—to Fractions; Geography—Guyot's Intermediate begun; English Grammar—Swinton's Language Lessons; Reading-Hillard's Second and Third Readers; Spelling—Patterson's Speller; Botany—Object Lessons; Natural Science—in Lectures for children, by Dr. Lockwood.

Writing, Composition, Declamation, Drawing, Gymnastics, and Object Lessons.

GRAMMAR SCHOOL DEPARTMENT.

FIRST YEAR. FOURTH CLASS.

Arithmetic—To Compound Numbers; Review: Mental Arithmetic—Brooks'; Geography—Guyot's Intermediate finished; English Grammar—Swinton's Elementary; United States History—Barnes'; Latin—Fischer's Grammar and Reader begun; Latin Composition—Fischer's begun; Reading—Hillard's Fourth Reader; Spelling—Warren's Speller; Natural Science—Lectures; German—Fischer's Ahn; French—Keetel's First Book.

Writing, Composition, Letter Writing, Declamation, and Military Drill.

SECOND YEAR. THIRD CLASS.

Arithmetic—Through Interest; Mental Arithmetic—Brooks' Normal: Latin—Grammar and Reader to Syntax; Latin Composition—Fischer's to Book II; Geography—Guyot's Grammar School; English Grammar—Swinton's Progressive to Syntax; United States History—Barnes'; German—Fischer's Ahn begun; French—Keetel's Elements of Grammar; Reading—Hillard's Fifth Reader; Spelling—Warren's Speller; Industrial Drawing—Krusi's; Natural Science—Lectures.

Writing, Composition, Letter Writing, Declamation and Military Drill.

B SCIENTIFIC CLASS.

This class recites with the Third in all subjects except Latin, substituting for it Book-Keeping—Bryant and Stratton's.

THIRD YEAR. SECOND CLASS.

Algebra—Through Fractions; Arithmetic—Brooks' new Normal; English Grammar—Swinton's Progressive; English History—Goodrich's; Reading—Hillard's Sixth Reader; Spelling—Henderson's Speller; German—Fischer's Ahn finished; French—Keetel's Analytical Grammar; Latin—Grammar and Reader finished; Latin Composition—Fischer's to Lesson XXXI; Cæsar's Gallic War—three books; Greek—White's Lessons to Conditional Clauses; Greek—Anabasis, one and a half books; Natural Science—Lectures.

Writing, Declamation, Composition, Letter Writing and Military Drill.

A SCIENTIFIC CLASS.

This class recites with the Second in all subjects except Latin and Greek, substituting for them—

Book Keeping—Bryant and Stratton's Larger; Industrial Drawing—Krusi's; Draughting—Physiology—Hutchinson's; Commercial Law—Lectures; United States Constitution—Alden; Natural Philosophy—Steele's.

FOURTH YEAR. LOWER FIRST CLASS.

Latin—Cæsar, Books IV, V, VI and VII; Latin—Cicero, Catilinarian Orations; Latin Composition—Fischer's to Book III; Greek—Anabasis, through Book V; Greek Composition—in White's Lessons; Algebra—through Quadratics; German—Reader; French—Keetel's Analytical Grammar; General History—Swinton's; Lectures in Geology and Zoology; English Grammar and U. S. History—Reviewed; Composition, Declamation and Military Drill.

H SCIENTIFIC CLASS.

Algebra—to Series; Geometry—five books; Botany—Gray's with Lectures; Chemistry—Steele's, with Lectures; Blowpipe Analysis—(Optional); Physical Geography—Guyot's; Rhetoric—Hart's; General History—Swintons; Lectures in Geology and Zoology; German—Reader: French—Keetel's Analytical Grammar; Elementary Studies Reviewed; Draughting; Composition, Declamation and Military Drill.

FIFTH YEAR. UPPER FIRST CLASS.

Latin—Cicero, three Orations; Latin—Æneid, six books; Latin Composition—Fischer's finished; Roman History and Antiquities; Algebra—Reviewed; Geometry—five books; German—Reader; French—Keetel's Analytical Grammar; Greek—Iliad, six books; Greek Composition—White's and Oral; Greek History and Antiquities; Classical Geography; Elementary Studies Reviewed; Composition, Declamation and Military Drill.

☞ NOTES ON COURSE OF STUDY.

French is under the charge of M. Ducroquet, a graduate of the Academie de Paris, and is taught in every grade in the School without extra charge.

The unit of recitation is one of twenty minutes. In many recitations this is doubled, and in a few tripled.

When a book is simply named it is meant that the book is to be *finished* at the end of the year under which it is named.

The H class is joined with the Lower First class in Algebra, General History, German and Science Lectures, and with the Upper First class in Geometry, Composition, Declamation and Military Drill.

Compositions are *required* from all classes every two weeks, class declamations weekly and general declamations and debates every three weeks. Parents are requested earnestly *not* to give excuses from these exercises.

When any study is given in Lectures notes are *required.* They must be copied, inspected and graded.

In classical History, Antiquities and Geography, Appleton's Primers of Literature and History will be used.

EXAMINATIONS AND REPORTS.

Examinations are held every ten weeks by the Examiners, most of whom are selected from the College Faculty. They will be enforced rigidly and thoroughly, with the design of showing to the student his deficiencies, and marking to the teacher the exact standing of his class. In grading, the Examination mark will count as one-fourth or the Term mark.

A report of the standing of each student is sent to his parent or guardian every ten weeks. Any failure to receive a Report should be promptly mentioned to the Rector, *who will not feel responsible where parents refuse or neglect to co-operate with him.* A mark of 100 is perfect, 0 is entire failure, and degrees of scholarship are indicated by marks between these limits. A grade below 60 is poor.

PRIZES.

Prizes are only given for excellence in speaking at the Commencement Exercises in June, and for proficiency in the department of Natural Science. These latter take the form of mineral cabinets.

LITERARY SOCIETIES.

Two Literary Societies meet weekly, managed by the students, with the co-operation of the teachers. In their meetings debates are a prominent feature, and their members are encouraged and urged to take the lead in the debates before the school. The weekly meetings are expected to adjourn before 9:30 P. M.

ATTENDANCE.

The hours of attendance are from 8:30 A. M. to 1.30 P. M. For absence, tardiness, or imperfect recitations, written excuses from parent or guardian are required. A second day's absence will bring a notification to the absentee's parent.

Trains on the Pennsylvania Railroad, which pass through New Brunswick, arrive at all hours of the day. Many pupils from the cities and villages along this line of railroad, live at home and come daily to New Brunswick. For this purpose School tickets may be obtained at a reduced rate. For students living at a greater distance,

a Boarding department is available. The Rector wishes it distinctly understood that, in a large city like New Brunswick, he cannot be responsible for the good conduct or well-being of boys who are allowed to board in town beyond his control.

TERMS OF TUITION.

PREPARATORY DEPARTMENT, -	$ 9	PER QUARTER.
4TH AND B SCIENTIFIC CLASSES, -	13	" "
A SCIENTIFIC CLASS, - - -	14	" "
H " " - - - - -	15	" "
3D CLASS, - - - - - -	16	" "
LOWER, UPPER 1ST AND 2D CLASSES,	18	" "

Bills for tuition will be sent quarterly, and are expected to be paid in advance. Pupils will be charged from the time of entrance, except that deduction for absences during the first three weeks of the school year will not be allowed. Students are received at any time, and assigned to the class which they are qualified to enter. They should, however, be present on the first day of the term. Those who come a few days late are much embarrassed, and are an embarrassment to others. No deduction is made for absence, unless occasioned by sickness for five weeks or more, when the loss will be shared equally between the parents and the school.

Special instructors will be engaged, if desired, for Music, Painting, &c., and their bills will be enclosed with the term bills. In exceptional cases backward boys *may*, with the consent of their parents, and the knowledge of the Rector, take private instruction in out-of-school hours from some of the teachers.

BOARDING DEPARTMENT.

The Boarding Department is some distance from the school building, giving the boys during school hours the spirit and stimulus of a large graded school, and at home the privacy of a small boarding school.

The number of boarders is limited to twenty.

Regular hours of study are required, under direction of teachers. Connected with the house are eight acres of ground, with shade trees and facilities for base ball and athletic sports. Daily out-door exercise is required, or, in case of stormy weather, exercise in the Gymnasium.

The food is abundant, substantial and nourishing, the Rector and

his own family having the same table with the boys. Parents who desire their boys to be healthy and in good condition for study, should not send them boxes of cake and pastry.

On Sunday the pupils are required in the morning to attend preaching in the College Chapel, unless the parents otherwise direct. In the afternoons a Bible class is held at the house. The Rector endeavors not to make Sunday either a day abhorrent to his pupils, or a day desecrated by them.

Pupils are not allowed to leave the grounds without special permission.

TERMS OF BOARDING DEPARTMENT.

Board, Tuition, Fuel and Light, $75 *per Quarter.* No extras, except for washing, medical attendance, and studies not in the regular course. Each pupil must bring towels, bag for soiled clothes, napkin ring, plated fork and spoon, umbrella, slippers and overshoes. All articles must be marked with the full name of the owner.

Pupils in the Boarding Department are expected to remain until the close of the year, unless other arrangements are made at the time of entering. Payments to be made on the same conditions as day scholars.

Damage to property will be repaired at the expense of the person committing it.

Necrology.

The following notices have been furnished by PROF. ISAAC E. HASBROUCK, the Biographer elected by the Alumni:

Seven of the Alumni have died since the publication of the catalogue of 1879-80, as follows:

Class of 1836. HON. HENRY WALDRON, Hillsdale, Mich.
" 1843. JOHN VAN VEGHTEN LANSING, M.D., Albany, N.Y.
" 1851. JOHN WILTSE LEE, Cornwall, N. Y.
" 1855. REV. WM. TILLOTSON ENYARD, New Brunswick, N.J.
" 1861. REV. GEORGE DEWITT BODINE, LODI, N. Y.
" 1874. REV. JOHN OPPIE, Geneva, N. Y.
" 1877. REV. JOHN AUCK VANDERVEER, Austin, Texas.

The sketches given below have been prepared from newspaper notices and from information obtained by correspondence with relatives and friends of the deceased.

HON. HENRY WALDRON

Was born at Albany, N. Y., Oct. 11, 1819, and entered the Junior Class in September, 1834. At the final examination of his class, June, 1836, he was placed in the "First Grade," and at graduation, the following month, was assigned the "Latin Salutatory," (Second Honor,) Cortlandt Parker having the First Honor. After graduation, he adopted the profession of civil engineering and settled in Michigan. Here he was elected a member of the State Legislature in 1843. He represented his district in the House of Representatives at Washington from 1853 to 1859. Again in 1871 he was sent to Congress, serving through three consecutive terms, until the close of the Forty-fourth Congress. His experience as a business man secured him places on the Committee on Banking, and on Ways and Means. He was also Chairman of the Committee on Mines and Mining. Mr. Waldron had been prominent as a banker and a Republican in his State for more than twenty-five years. He died suddenly, from rupture of a blood vessel of the brain.

JOHN VAN VEGHTEN LANSING

Was born at Lansingburgh, N.Y., and prepared for college in the academy at that place. He entered the Sophomore Class of Rutgers College, by examination, in September, 1840. At graduation, in 1843, by vote of the Faculty, he was assigned the Valedictory, or First Honor. After graduating, he at first studied law, but soon gave it up for the profession of medicine. He received his diploma as M.D. from the University of the City of New York shortly after attaining his majority. During several years he was Superintendent of the Insane Asylum at Flatbush, N. Y. · Thence he removed to Albany, N.Y., where he married a Miss McKnight, and where he resided, continuing the practice of his profession until his death, in 1880. This was the result of an accident,—the upsetting of a boat from which he was fishing, on Lake Chazy, N.Y.

Dr. Lansing's reputation as a public spirited man and as a skillful physician was high and deserved. During the war of the Rebellion he was one of the surgeons appointed by the U. S. War Department to examine recruits at Albany, N. Y. At one time he was also examining surgeon, by appointment, to the U. S. Pension Bureau. Dr. Lansing was a member of the Albany County Medical Society and the State Medical Society, of which association he was for a time Treasurer. He was also connected with the Albany Medical College and with the Albany City Hospital, and was a member of the Board of Public Instruction of Albany. At the time of his death he was the physician of the State Prison at Clinton, N. Y., where he endeared himself to the prisoners, the officials and the villagers by his uniform kindness and courtesy. Those who knew the doctor intimately, and were familiar with his devotion as a physician and his sincerity and unselfishness as a friend, will testify to his rare merits. In the sick room he brought the gentleness of a woman and the skill of a successful practitioner. He was one of those men who, sowing courtesy, reaped friendship; who, planting kindness, gathered love.

JOHN WILTSE LEE

Was the oldest son of the Rev. R. P. Lee, for thirty years pastor of the Reformed Dutch Church of Montgomery, N. Y. He is remembered by his schoolmates at the Montgomery Academy, where he prepared for college, as a bright, precocious student. His early development is further shown by his graduation, July, 1851, at the

age of 19. He entered the legal profession, but his tastes were literary, and the dry technicalities and ceaseless toil of the profession had few attractions for him. Added to this, his health, always frail, and a highly nervous excitable temperament ill fitted him for the excitement of forensic contests. His first attempts in the literary field were made while in the office of the Hon. Chas. H. Winfield of Orange County, N. Y., whom he assisted in publishing a local political paper. He also wrote for various journals and occasionally contributed to some of the magazines. In 1850 he published a campaign sheet called the "*Wide Awake.*" He possessed a vivid imagination, which gave warmth and coloring to his productions, and his first literary venture, "*Stories of the Hudson,*" is a collection of graceful sketches in poetry and prose. In 1876 he published the poem entitled "*The Centurion,*" a sort of patriotic Centennial medley, parts of which commanded the admiration and praise of critics. In 1877 he founded the "*Cornwall Mirror,*" now called the "*Cornwall Reflector.*" This seemed the work of his greatest pride, to which he sacrificed his limited means and time. The severity of his labors here compelled him to relinquish the management of the paper, but his interest in it did not cease, and he carefully arranged for its continuance in other hands. Broken in health, he still found relief in labor, and beguiled the weary hours of his long illness in compiling a brief collection of his better poems, a memoir of his father and genealogical tables of his family extending back several hundred years, under the title of "Aftermath." The memoir was hardly completed when Death came and closed his labors,—the last sentences of his manuscript being blurred and unfinished.

It had been hoped that a change of seasons would restore his failing health, but spring, which brought life to the leaves and flowers, brought death to him, and on April 4, 1880, his body was placed under the sod. His friendships were few but sincere and lasting. That he cherished a deep religious spirit is shown in many of his productions, and in none more than in the last, "Conquer me, Jesus."

REV. WILLIAM TILLOTSON ENYARD

Was born in the city of New York, August 19, 1833. He prepared for college at the academy at West Bloomfield, N. J., graduated from college in 1855, and from the Theological Seminary in 1858. In the summer of the same year he was ordained, and installed as pastor of St. Paul's Reformed Church at Mott Haven, N. Y. Here he remained for seven years, when his unwearying energy and popular

manners, together with his marked talents and earnest labors, already manifested, attracted the notice of the North Reformed Church of Brooklyn, which invited him to become its pastor. He accepted, and was duly installed on October 24, 1865. During a pastorate here of eight years, he labored earnestly and successfully in building up a strong and vigorous working parish. The conditions of its life, however, had changed with the growth of the city, and thinking the presence and efforts of a new workman in its pulpit would best ensure its continued growth and prosperity, in 1873 he accepted a call from the Reformed Church on Brighton Heights, Staten Island. Mr. Enyard found this church in debt, and while laboring earnestly for its spiritual welfare was unceasing in his efforts to remove its financial embarrassment. In this he succeeded, but his labors had taxed too severely his health, which gave way about two years ago, necessitating his retirement from his charge and from active service in the ministry. He came to New Brunswick, the early home of his wife, where he died unexpectedly on April 26, 1880.

Mr. Enyard was a man whose religious life did not rob him of a natural vivacity and cheerfulness which belonged to him. Well informed on learned and ordinary topics, a close and discriminating observer of men and events, amiable and gentle, he won esteem and influence in private life. As a preacher, he had a wide popularity. He spoke with eloquence and effectiveness. His voice, strong but well modulated, was magnetic upon the largest audience. His sermons gave solid food for reflection, and at the same time showed a chaste and animated fancy, and those who sat under his preaching were refreshed in heart as well as enlightened in mind.

REV. GEORGE D. W. BODINE

Was born at Lodi, N. Y., Aug. 20, 1836. After a thorough course of preparation in Ovid Academy, he entered Rutgers College, from which he was graduated in 1861 at the head of his class. Upon finishing his theological studies in the Seminary at New Brunswick in 1864, he assumed pastoral charge of the Reformed Church at Addisville, Pa. Here he labored with success for four years, when he accepted a call to the Reformed Church of Germantown, N. Y. His last pastorate at Bushnell, Ill., extended from 1874, until failing health obliged him, about one year before his death, to resign. He displayed a beautiful and consistent Christian life, and died May 3, 1880, in the serene conviction of his salvation through the merits of Jesus Christ.

Mr. Bodine was possessed of exceptional mathematical abilities, and was an excellent student in other branches. He was a close and clear thinker, an excellent preacher, modest in manner, a faithful friend, and conscientious in the discharge of all duties. He died greatly regretted. At his funeral it was appropriately said, "As his whole life had been a benediction, so was his death an *euthanasia*, the fitting close of such a life."

REV. JOHN OPPIE

Was born at Griggstown, N. J., March 2, 1854. His early life was spent in his native place, where, while yet a lad, he united with the Reformed Church. He was prepared for college at the Grammar School in New Brunswick, and in 1870 entered college with the class of 1874, with whom he graduated June 17, 1874. The following year was spent at his home, principally in teaching, when he returned to New Brunswick and entered the Theological Seminary. He was ordained a minister of the Gospel in 1878, and called to the pastorate of the Reformed Church at Geneva, N. Y., where he was installed Oct. 1st. His ministry opened with promises of success, but the lack of a robust constitution soon became manifest under his new and earnestly prosecuted labors, and in about a year failing health forced him to resign his charge and return to his native place, whence the Master called him on February 29, 1880.

Mr. Oppie possessed exceptionally fine musical talent, and while in college was the college organist, and afterward, when in the Theological Seminary, secured the appointment of organist of the Second Reformed Church, in competition with the talent of the city. His memory was retentive, and the material there stored was used with earnestness and effect in his labors for his people, who found his sermons and addresses sources of comfort and spiritual profit. By his death his former classmates lose one of their most promising and valued brothers, his wife and child a devoted husband and father, and the Christian ministry a useful and earnest worker.

REV. JOHN QUICK VANDERVEER

Was born near North Branch, N. J., March 13, 1854. He united with the Reformed Church of that place sixteen years later, and was soon after led to devote himself to the Christian ministry. His preparatory studies were pursued under the Rev. William Cornell, then Principal of the Somerset Classical Institute at Somerville, N. J.

He entered the Freshman Class at Rutgers in September, 1873. He was a hard student, aiming to be thorough in all his work, and secured the respect and esteem of his professors and fellow students. He was appointed one of the eight contestants for the Myron W. Smith Prize in Declamation at the Sophomore Exhibition of February 22, 1875. At the close of his Senior year, he was the successful competitor for the Appleton Prize in Moral Philosophy, and, on his general scholarship, received the Fourth Honor in his class ('77,) being assigned the Scientific Oration for Commencement Day. Symptoms of pulmonary weakness had already manifested themselves, however, and by direction of his physician he did not deliver the oration. In the following fall he entered the Theological Seminary at New Brunswick, but the state of his health demanded a change, and, again by order of his physician, he sought a milder climate. He proceeded to Texas, and there, continuing his studies, in due time was licensed to preach by the Classis of Austin. Meanwhile his health had improved; but during a visit to his friends at the north, in the summer of 1879, he contracted a cold which, during his return, developed into pneumonia and left his lungs permanently affected. He decided to return home to die among his friends, but, owing to an unusually protracted voyage, death overtook him when but a few hours from home, and he was buried at sea, off the southern coast of Delaware.

Mr. Vanderveer was married December, 1877, to Miss Julia Robinson of New Brunswick, and leaves one child. In his death his friends and the Church have lost one whose talents and perseverance gave promise of a brilliant and successful career in the field which he had chosen for his work.

Wants of the College.

The growth of the Institution and the demand for greater facilities for education, are creating wants which appeal imperatively to the friends of the College.

First, to provide adequate endowment for established professorships, and for such additional ones as may be from time to time needed. *Second*, the funds for some general purposes of the College require a large increase to make yearly additions to the library, and to bind up and keep in order what has been accumulated. *Third*, to make each year fresh additions to the supply of working apparatus in every department, Maps, Charts, Models, Drawings, Casts, &c. A fund that could be used for these and similar specific objects would greatly increase the working efficiency of the Institution.

ACKNOWLEDGMENT.

Presentations of books, during the past year, from the following persons to the College Library, are gratefully acknowledged:

Hon. Robert H. Pruyn, LL.D., Class '33.
Rev. Aaron Lloyd, Class '42.
Wm. D. Weeks, Newark, N. J.
A. P. Scharff, Esq., Newark, N. J.
G. E. Winants, Bergen Point, N. J.
John Laubenheimer, Class '83.
H. D. B. Mulford, Class '81.
Rev. Dr. Gustavus Abeel, Newark, N. J.
The U. S. Government.
Chas. N. Ironside, Class '81.
I. S. Upson, Class '81.
James S. Aitkin, Esq., Class '54.
The Smithsonian Institution.
And others.

NOTE.

In consequence of decreased rate of legal interest, some of the Prizes have been reduced as follows:

Appleton Memorial Prize, - - -	$30	instead of	$35.
Brodhead Classical " - - -	30	" "	35.
Suydam Prize for Composition, - -	30	" "	40.
" " in Natural Science, - -	30	" "	40.
Tunis Quick Prize, - - - -	18	" "	21.
Peter Spader 1st Prize, - - - -	24	" "	28.
" " 2d " - - - -	18	" "	21.

The former part of the Catalogue relating to prizes had been printed before these changes were found necessary, and were ordered by the Board of Trustees at the meeting held Oct. 26, 1880.

Form of Bequest.

A form of bequest is appended, in the hope that the friends of education will remember the College, and aid the earnest efforts of its friends to make it as widely and largely useful as possible. As long as it continues to prosper and enlarge, an increase of funds will be needed.

BEQUEST.

I give and bequeath unto the Trustees of Rutgers College, in New Jersey, ...Dollars, for the maintenance and support of said College.

OR,

I give and bequeath unto the Trustees of Rutgers College, in New Jersey, ...Dollars, to endow a Professorship of.... in said College.

OR,

I give and bequeath unto the Trustees of Rutgers College, in New Jersey, ...Dollars, to increase the Library of said College.

OR,

I give and bequeath unto the Trustees of Rutgers College, in New Jersey, ...Dollars, to increase the Philosophical Apparatus of said College.

OR,

I give and bequeath unto the Trustees of Rutgers College, in New Jersey, ... Dollars, for the endowment of the Grammar School of said College.



CATALOGUE

—OF—

RUTGERS COLLEGE,

—AT—

NEW BRUNSWICK, N. J.

1881-'82.

Catalogue

OF THE

OFFICERS AND STUDENTS

OF

RUTGERS COLLEGE,

NEW BRUNSWICK, N. J.

1881-'82.

FOUNDED A. D. 1770.

PRINTED FOR THE COLLEGE.

Trustees.

EX-OFFICIO:

His Excellency, GEORGE C. LUDLOW.....New Brunswick,

Governor of the State of New Jersey.

Hon. MERCER BEASLEY, LL. D.,.....Trenton,

Chief Justice of the State of New Jersey.

Hon. JOHN P. STOCKTON,..... Trenton,

Attorney General of the State of New Jersey.

BY ELECTION:

Names.	*Residences.*	*Date of Election.*
Rev. Wm. H. CAMPBELL, D.D., LL.D., *President of the College.*	New Brunswick,	Sept. 16, 1862
Rev. ABRAHAM MESSLER, D.D.,	Somerville,	July 22, 1845
Rev. GUSTAVUS ABEEL, D.D.,	Newark,	July 22, 1845
Rev. T. E. VERMILYE, D.D., LL.D.,	New York City,	July 24, 1849
Hon. JOHN HOPPER,	Paterson,	July 23, 1851
Hon. F. T. FRELINGHUYSEN, LL. D.,	Washington, D. C.,	July 21, 1851
MAURICE E. VIELE, Esq.,	Albany, N. Y.,	July 27, 1853
Hon. ROBERT H. PRUYN, LL.D.,	Albany, N. Y.,	July 27, 1853
Rev. DAVID D. DEMAREST, D.D.,	New Brunswick,	April 13, 1858
Hon. JOSEPH P. BRADLEY, LL.D.,	Washington, D. C.,	June 29, 1859
Rev. FRANCIS M. KIP, D.D.,	Stapleton, S. I.,	Oct. 16, 1860
HENRY L. JANEWAY, Esq.,	New Brunswick,	April 8, 1862
JOHNSON LETSON, Esq.,	New Brunswick,	June 16, 1863
Rev. GARRET C. SCHANCK,	Marlboro,	April 11, 1866
STAFFORD R. W. HEATH, Esq.,	Newark,	April 11, 1866
Rev. TALBOT W. CHAMBERS, D.D.,	New York City,	June 17, 1868
Rev. JOACHIM ELMENDORF, D.D.,	Poughkeepsie, N. Y.,	April 14, 1869
*CORNELIUS ESSELSTEYN, Esq.,	Hudson, N. Y.,	April 14, 1869
Rev. PAUL D. VAN CLEEF, D.D.,	Jersey City,	April 14, 1869

*Deceased.

Names.	*Residences.*	*Date of Election.*
JAMES W. SCHERMERHORN, Esq.,	New York City,	Feb. 7, 1871
WILLIAM C FOWLER, Esq.,	Brooklyn, N. Y.,	April 18, 1871
SAMUEL SLOAN, Esq.,	New York City,	June 20, 1871
Hon. GEORGE C. LUDLOW,	New Brunswick,	June 17, 1873
Hon. WILLIAM A. NEWELL,	Olympia, Wash. Ter.,	June 17, 1873
Rev. ISAAC S. HARTLEY, D.D.,	Utica, N. Y.,	June 17, 1873
Hon. THEODORE F. RANDOLPH,	Morristown,	March 31, 1874
S. O. VANDERPOEL, M.D., LL.D.,	New York City,	June 22, 1875
THEODORIC R. WESTBROOK, LL.D.,	Kingston, N. Y.,	Oct. 26, 1875
Rev. WILLIAM ORMISTON, D.D.,	New York City,	June 20, 1876
Rev. JOHN GASTON, D.D.,	Passaic,	June 20, 1876
HENRY W. BOOKSTAVER, Esq.,	New York City,	June 20, 1876
ROBERT F. BALLANTINE, Esq.,	Newark,	June 20, 1876
Rev. WM. RANKIN DURYEE, D.D.,	Jersey City,	March 5, 1878
Rev. WM. J. R. TAYLOR, D.D.,	Newark,	June 18, 1878
Rev. ABRAHAM R. VAN NEST, D.D.,	Philadelphia, Pa.,	Oct. 29, 1878
JOHN LEFFERTS, Esq.,	Flatbush, L. I.,	Oct. 29, 1878
WILLIAM CLARK, Esq.,	Newark,	Oct. 29, 1878
Hon. GEORGE H. SHARPE,	Kingston, N. Y.,	March 4, 1879

Rev. DAVID D. DEMAREST, D.D., ... New Brunswick,
Secretary of the Board.

JOHN C. ELMENDORF, Esq., ... New Brunswick,
Treasurer.
Office—39 Albany Street.

PETER THOMAS, *Janitor.*

Faculty.

REV. WILLIAM HENRY CAMPBELL, D.D., LL.D.,
(PRESIDENT,)
THEODORE FRELINGHUYSEN *Professor of Biblical Literature, Evidences of Christianity, and Moral Philosophy.*

GEORGE H. COOK, LL.D.,
(VICE PRESIDENT,)
Professor of Geology and Agriculture.

REV. DEWITT TEN BROECK REILEY, A.M.,
Professor of the Latin Language and Literature, and Rector of the Grammar School.

REV. T. SANDFORD DOOLITTLE, D.D.,
COLLEGIATE CHURCH *Professor of Rhetoric, Logic, and Mental Philosophy.*

REV. JACOB COOPER, D.D., D.C.L.,
Professor of the Greek Language and Literature.

JOHN CONOVER SMOCK, A.M.,
Professor of Mining and Metallurgy.

GEORGE W. ATHERTON, A.M.,
VOORHEES *Professor of History, Political Economy, and Constitutional Law.*

REV. CARL MEYER, D.D.,
Professor of Modern Languages.

FRANCIS CUYLER VAN DYCK, A.M.,
Professor of Physics and Inorganic Chemistry.

EDWARD A. BOWSER, M.S., C.E.,
Professor of Mathematics and Engineering.

ISAAC EDGAR HASBROUCK, A.M.,
Professor of Mathematics and Graphics.

GEORGE BENJAMIN MERRIMAN, A.M.,
Professor of Mathematics, Astronomy and Experimental Mechanics.

PETER TOWNSEND AUSTEN, PH.D., F.C.S.,
Professor of Analytical and Applied Chemistry.

REV. CHARLES EDWARD HART, D.D.,
Professor of English Language and Literature.

SAMUEL NELSON HOLMES, 1ST LIEUTENANT 13TH U. S. INFANTRY,
Professor of Military Science and Tactics.

FRANCIS AUGUSTUS WILBER, B.S.,
Assistant in Analytical Chemistry.

ISAAC EDGAR HASBROUCK, A.M.,
Librarian.

The names of Professors are arranged according to seniority of appointment, with the exception of the President's.

Catalogue of Students

FOR THE YEAR BEGINNING SEPT. 20, 1881.

POST-GRADUATE STUDENTS.

Names.	*Residences.*	*Rooms.*
WILLY MUSS ARNOLDT,	New York City,	Hertzog Hall.
THEO. BURGES BOORAEM, Jr.,	New Brunswick,	54 Bayard Street.
MYRON T. CONKLIN,	Kingston, N. Y.,	22 Hertzog Hall.
JOSIAH E. CRANE,	Fair Oaks, N. Y.,	23 Hertzog Hall.
ALFRED H. DEMAREST,	New Brunswick,	Seminary Place.
CHARLES S. DUTTON,	Holland, Mich.,	12 Hertzog Hall.
ABEL H. HUINZINGA,	Zeeland, Mich.,	46 Hertzog Hall.
T. JOHN KOMMERS,	New Brunswick,	35 Hertzog Hall.
CHAS. T. POMEROY,	Newark,	Newark.
JOHN SCARLET,	South Branch,	50 Hertzog Hall.
EDWIN F. SEE.	Tarrytown, N. Y.,	44 Hertzog Hall.
JOHN L. STILLWELL,	Somerville,	49 Hertzog Hall.
LIVINGSTON L. TAYLOR,	Newark,	14 Hertzog Hall.
HORACE G. UNDERWOOD,	New Durham,	32 Hertzog Hall.
IRVING S. UPSON,	Marion, Conn.,	College avenue.
J. RUSSEL VERBRYCKE,	New Brunswick,	20 Church Street.

SENIOR CLASS.

CLASSICAL SECTION.

Names.	*Residences.*	*Rooms*
JOHN BARTLETT ALDEN,	Hoosick Falls, N. Y.,	Metuchen.
THEO. AMERMAN BEEKMAN,	South Branch,	30 Hertzog Hall.
IRVING BURDICK,	Brooklyn, N. Y.,	169 Neilson St.
JACOB CHESTER CHAMBERLAIN,	Madanapalle, India.	Seminary Pl.

Name.	Residence.	Room.
WILLIAM ISAAC CHAMBERLAIN,	Madanapalle, India.	Seminary P.
WILL STOCKTON CRANMER,	Jersey City.	Hamilton Av
CHARLES LEAVITT EDGAR,	E. New Brunswick.	1st av. E. N. B.
JOHN HAMILTON GILLESPIE,	Jersey City.	76 Hertzog Hall
ABRAHAM BRITTON HAVENS	Jersey City.	East New Brunswick
JOSEPH HOLES,	New Brunswick	6 Albany St.
HOWARD MELVILLE LANNING,	Brooklyn, N. Y.	cor. sec. & Albany
WILLIAM FRED MUSSER Post-G.	Jersey City.	cor. George & Albany
EDWIN OSCAR MOFFETT,	Metuchen.	Hamilton Av
JOHN MORGAN,	Peekskill-on-Hud'n, N. Y.	32 E. Hall
WALTER NEWELL,	New Brunswick.	16 College St.
JOHN ALLAN NORTON	Stapleton, N. Y.	East N. Brunsw'k
JOHN PARKER PIERCE,	Catskill, N. Y.	12 Paterson St.
NELSON DUBOIS PERRINE	New Brunswick.	Three-Mile-Run
[illegible]	[illegible]	32 Hertzog Hall
[illegible]	[illegible]	9 Paterson St.
[illegible]	[illegible]	Paterson St.
[illegible]	[illegible]	2 Hertzog Hall
[illegible]	[illegible]	32 Hertzog Hall

SENIOR SECTION.

Name.	Residence.	Room.
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]

JUNIOR CLASS.

CLASSICAL SECTION.

Names.	*Residences.*	*Rooms.*
HENRY WARREN BEEBE,	New Brunswick,	117 Somerset St.
GEORGE B. MCCLELLAN BELL,	New Brunswick,	71 French St.
JOHN TALLMADGE BERGEN,	Flatlands, L. I.,	20 Hertzog Hall.
JOHN HENRY BRANDOW,	Coxsackie, N. Y..	89 Hertzog Hall.
GEORGE ZABRISKIE COLLIER,	New Brunswick,	71 Bayard St.
FREDERICK WALKER CUTLER,	Morristown,	69 Albany st.
WILLIAM H. STEELE DEMAREST,	New Brunswick,	Seminary Place.
JOHN HANDLEY,†	Sayreville,	Sayreville.
FRED. PARCELL HILL,	E. New Brunswick,	Raritan ave.
JOHN LAUBENHEIMER,	Bergen Point,	9 Easton ave.
GEORGE MUNN LILBURN,	Haverstraw, N. Y.,	4 Kirkpatrick St.
WILLIAM CHRISTIAN MILLER,	Albany, N. Y.,	69 Bayard St.
ROBERT V. PALMER,	Poughkeepsie, N. Y.,	74 Bayard St.
HARRY MORTIMER PETERS,	Newark,	Newark.
JOHN LUDLOW SCHENCK,	Neshanic,	78 Bayard St.
JARED WATERBURY SCUDDER,	Brooklyn, N.Y.,	Hamilton & Guldin
ALFRED FORD SKINNER,	Belleville,	123 George St.
CYRUS SMITH,†	New Brunswick,	Redmond St.
THEODORE STRONG,	New Brunswick,	Hamilton av.
DUNCAN DUNBAR SUTPHEN,	Newark,	123 George St.
HENRY JUDD WARD,	Middleville, N. Y.,	6 Paterson St.

SCIENTIFIC SECTION.

Names.	*Residences.*	*Rooms.*
M. GEORGE BIERMAN,†	Newark,	16 Church St.
GEORGE ELTON JENKINS,	Mine Hill,	College av.
THOMAS DOREMUS VAN SYCKLE,†	Newark.	Newark.

† Partial.

FRANCIS CUYLER VAN DYCK, A.M.,
Professor of Physics and Inorganic Chemistry.

EDWARD A. BOWSER, M.S., C.E.,
Professor of Mathematics and Engineering.

ISAAC EDGAR HASBROUCK, A.M.,
Professor of Mathematics and Graphics.

GEORGE BENJAMIN MERRIMAN, A.M.,
Professor of Mathematics, Astronomy and Experimental Mechanics.

PETER TOWNSEND AUSTEN, PH.D., F.C.S.,
Professor of Analytical and Applied Chemistry.

REV. CHARLES EDWARD HART, D.D.,
Professor of English Language and Literature.

SAMUEL NELSON HOLMES, 1ST LIEUTENANT 13TH U. S. INFANTRY.
Professor of Military Science and Tactics.

FRANCIS AUGUSTUS WILBER, B.S.,
Assistant in Analytical Chemistry.

ISAAC EDGAR HASBROUCK, A.M.,
Librarian.

The names of Professors are arranged according to seniority of appointment with the exception of the President's.

Catalogue of Students

FOR THE YEAR BEGINNING SEPT. 20, 1881.

POST-GRADUATE STUDENTS.

Names.	*Residences.*	*Rooms.*
WILLY MUSS ARNOLDT,	New York City.	Hertzog Hall.
THEO. BURGES BOORAEM, Jr.,	New Brunswick,	54 Bayard Street.
MYRON T. CONKLIN,	Kingston, N. Y.,	22 Hertzog Hall.
JOSIAH E. CRANE,	Fair Oaks, N. Y.,	23 Hertzog Hall.
ALFRED H. DEMAREST,	New Brunswick,	Seminary Place.
CHARLES S. DUTTON,	Holland, Mich.,	12 Hertzog Hall.
ABEL H. HUIZINGA,	Zeeland, Mich.,	46 Hertzog Hall.
T. JOHN KOMMERS,	New Brunswick,	35 Hertzog Hall.
CHAS. T. POMEROY,	Newark,	Newark.
JOHN SCARLET,	South Branch,	50 Hertzog Hall.
EDWIN F. SEE.	Tarrytown, N. Y.,	44 Hertzog Hall.
JOHN L. STILLWELL,	Somerville,	40 Hertzog Hall.
LIVINGSTON L. TAYLOR,	Newark,	14 Hertzog Hall.
HORACE G. UNDERWOOD,	New Durham,	32 Hertzog Hall.
IRVING S. UPSON,	Marion, Conn.,	College avenue.
J. RUSSEL VERBRYCKE,	New Brunswick,	20 Church Street.

SENIOR CLASS.

CLASSICAL SECTION.

Names.	*Residences.*	*Rooms.*
JOHN BARTLETT ALDEN,	Hoosick Falls, N. Y.,	Metuchen.
THEO. AMERMAN BEEKMAN,	South Branch,	30 Hertzog Hall.
[illegible]	Brooklyn, N. Y.,	169 Neilson St.
[illegible]AIN,	Madanapalle, India.	Seminary Pl.

FRANCIS CUYLER VAN DYCK, A.M.,
Professor of Physics and Inorganic Chemistry.

EDWARD A. BOWSER, M.S., C.E.,
Professor of Mathematics and Engineering.

ISAAC EDGAR HASBROUCK, A.M.,
Professor of Mathematics and Graphics.

GEORGE BENJAMIN MERRIMAN, A.M.,
Professor of Mathematics, Astronomy and Experimental Mechanics.

PETER TOWNSEND AUSTEN, PH.D., F.C.S.,
Professor of Analytical and Applied Chemistry.

REV. CHARLES EDWARD HART, D.D.,
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SAMUEL NELSON HOLMES, 1ST LIEUTENANT 13TH U. S. INFANTRY.
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MYRON T. CONKLIN,	Kingston, N. Y.,	22 Hertzog Hall.
JOSIAH E. CRANE,	Fair Oaks, N. Y.,	23 Hertzog Hall.
ALFRED H. DEMAREST,	New Brunswick,	Seminary Place.
CHARLES S. DUTTON,	Holland, Mich.,	12 Hertzog Hall.
ABEL H. HUINZINGA,	Zeeland, Mich.,	46 Hertzog Hall.
T. JOHN KOMMERS,	New Brunswick,	35 Hertzog Hall.
CHAS. T. POMEROY,	Newark,	Newark.
JOHN SCARLET,	South Branch,	50 Hertzog Hall.
EDWIN F. SEE.	Tarrytown, N. Y.,	44 Hertzog Hall.
JOHN L. STILLWELL,	Somerville,	49 Hertzog Hall.
LIVINGSTON L. TAYLOR,	Newark,	14 Hertzog Hall.
HORACE G. UNDERWOOD,	New Durham,	32 Hertzog Hall.
IRVING S. UPSON,	Marion, Conn.,	College avenue.
J. RUSSEL VERBRYCKE,	New Brunswick,	20 Church Street.

SENIOR CLASS.

CLASSICAL SECTION.

Names.	*Residences.*	*Rooms.*
JOHN BARTLETT ALDEN,	Hoosick Falls, N. Y.,	Metuchen.
THEO. AMERMAN BEEKMAN,	South Branch,	30 Hertzog Hall.
IRVING BURDICK,	Brooklyn, N. Y.,	169 Neilson St.
JACOB CHESTER CHAMBERLAIN,	Madanapalle, India,	Seminary Pl.

Names.	*Residences.*	*Rooms.*
WILLIAM ISAAC CHAMBERLAIN,	Madanapalle, India.	Seminary Pl.
WILL. STOCKTON CRANMER,	Jersey City,	Hamilton Av.
CHARLES LEAVITT EDGAR,	E. New Brunswick,	1st av., E. N. B.
JOHN HAMILTON GILLESPIE,	Jersey City,	18 Hertzog Hall.
ABRAHAM BRITTON HAVENS,	Jersey City,	East New Brunswick.
JOSEPH HOVER,	New Brunswick,	47 Albany St.
HOWARD MELVILLE LANSING,	Brooklyn, N. Y.,	cor. Geo. & Albany
WILLIAM FRED. MIDDELEGGE,	Jersey City,	cor. George & Albany.
EDWIN OSCAR MOFFETT,	Metuchen,	Hamilton Av.
JOHN MORRISON,	Fishkill-on-Hud'n, N. Y.,	26 H. Hall.
WALTER NEWELL,†	New Brunswick,	146 George St.
JAMES AVERY NORRIS,	Shavertown, N. Y.,	East N. Bruns'k.
JAMES POWERS PHILIP,	Catskill, N. Y.,	58 Paterson St.
NELSON DEWITT PUMYEA,	New Brunswick,	Three-Mile-Run.
PHILIP WILSON PITCHER,	Poughkeepsie, N.Y.,	52 Hertzog Hall.
EDGAR F. RANDOLPH,	Morristown,	8 Paterson St.
MYRON TRACY SCUDDER,	Up-Red-Hook, N. Y.,	9 Paterson St.
DANIEL WESLEY SKELLENGER,	Chester,	39 Hertzog Hall.
RYNIER J. WORTENDYKE,	Jersey City,	53 Hertzog Hall.

SCIENTIFIC SECTION.

Names.	*Residences.*	*Rooms.*
FRED. WAGONER BENNETT,	Cape May C. H.,	58 Paterson St.
PHILIP HASBROUCK BEVIER,	Gardiner, N. Y.,	63 Bayard St.
FRANK STRONG CURTIS,†	East New Brunswick,	East New B.
NATHANIEL B. K. HOFFMAN,	Readington,	62 Bayard St.
GEORGE HENRY JOHNSON,	New Brunswick,	8 George St.
SOLOMON LEFEVRE,	New Paltz, N. Y.,	59 French St.

† Partial.

JUNIOR CLASS.

CLASSICAL SECTION.

Names.	*Residences.*	*Rooms.*
HENRY WARREN BEEBE,	New Brunswick,	117 Somerset St.
GEORGE B. MCCLELLAN BELL,	New Brunswick,	71 French St.
JOHN TALLMADGE BERGEN,	Flatlands, L. I.,	20 Hertzog Hall.
JOHN HENRY BRANDOW,	Coxsackie, N. Y..	89 Hertzog Hall.
GEORGE ZABRISKIE COLLIER,	New Brunswick,	71 Bayard St.
FREDERICK WALKER CUTLER,	Morristown,	69 Albany st.
WILLIAM H. STEELE DEMAREST,	New Brunswick,	Seminary Place.
JOHN HANDLEY,†	Sayreville,	Sayreville.
FRED. PARCELL HILL,	E. New Brunswick,	Raritan ave.
JOHN LAUBENHEIMER,	Bergen Point,	9 Easton ave.
GEORGE MUNN LILBURN,	Haverstraw, N. Y.,	4 Kirkpatrick St.
WILLIAM CHRISTIAN MILLER,	Albany, N. Y.,	69 Bayard St.
ROBERT V. PALMER,	Poughkeepsie, N. Y.,	74 Bayard St.
HARRY MORTIMER PETERS,	Newark,	Newark.
JOHN LUDLOW SCHENCK,	Neshanic,	78 Bayard St.
JARED WATERBURY SCUDDER,	Brooklyn, N.Y.,	Hamilton & Guldin
ALFRED FORD SKINNER,	Belleville,	123 George St.
CYRUS SMITH,†	New Brunswick,	Redmond St.
THEODORE STRONG,	New Brunswick,	Hamilton av.
DUNCAN DUNBAR SUTPHEN,	Newark,	123 George St.
HENRY JUDD WARD,	Middleville, N. Y.,	6 Paterson St.

SCIENTIFIC SECTION.

Names.	*Residences.*	*Rooms.*
M. GEORGE BIERMAN,†	Newark,	16 Church St.
GEORGE ELTON JENKINS,	Mine Hill,	College av.
THOMAS DOREMUS VAN SYCKLE,†	Newark.	Newark.

† Partial.

SOPHOMORE CLASS.

CLASSICAL SECTION.

Names.	*Residences.*	*Rooms.*
PETER S. BEEKMAN,	New Brunswick,	Hamilton St.
MATTHEW LINN BRUCE,	Andes, N. Y.,	College ave.
WILLIAM PATERSON BRUCE,	Andes, N. Y.,	College ave.
PETER CRISPELL,	Hurley, N. Y.,	4 Kirkpatrick St.
GEORGE DAVIS,	White House Station,	62 Bayard St.
BENJAMIN EDWARD DICKHAUT,	East New York, L. I.,	27 Hertzog H.
LEVI B. EDWARDS,	New Brunswick,	Codwise ave.
WILLIAM GOODWIN LUDLOW,	New Brunswick,	51 Albany St.
JAMES GULICK MEYER,	Matteawan, N. Y.,	Hamilton St.
CHARLES EDWARD PATTISON,	Metuchen,	Metuchen.
DEWITT EDWARD ROGERS,†	Fishkill-on-Hudson,	79 George St.
FERD. VANDERVEER ROGERS,	Davenport, Iowa,	79 George St.
JOHN A. THOMPSON,	New Kingston, N. Y.,	24 Hertzog Hall.
HENRY VANBRACKLE,	Hazlet,	24 Hertzog Hall.
J. ALFRED VAN NEST,	New Brunswick,	2 French Street.
GEORGE AUGUSTUS VROOM,	East Haddam, Conn.,	78 Bayard St.

SCIENTIFIC SECTION.

Names.	*Residences.*	*Rooms.*
GEORGE H. BLAKELEY,	Middlebush,	Middlebush.
JOHN EDWARD HILL,	Newark,	Newark.
JACKSON JAQUES,	Uniontown,	Uniontown.
BENJAMIN LIPPINCOTT,	Cinnaminson,	53 Albany St.
WILLIAM H. LUSTER, JR.,	Elizabeth,	38 Prospect St.
JOHN WM. MCKELVEY,	New Brunswick,	Easton ave.
JOHN GEORGE TAIT,†	Metuchen,	Metuchen.
LOUIS FREDERICK RUF,	Freehold,	55 Albany St.
FRANKLIN STODDART SMITH,	New Brunswick,	Somerset St.

† Partial.

Names.	*Residences.*	*Rooms.*
CYRUS W. FIELD SPROUL,	Keyport,	172 Burnet St.
FRANCIS STRYKER,	Trenton,	Trenton.
EDWARD THOMPSON WARD,	Newark,	Newark.
FREDERIC THOMPSON WARD,†	Newark,	Newark.
HENRY R. L. WORRALL,	Elizabeth,	Elizabeth.

FRESHMAN CLASS.

CLASSICAL SECTION.

Names.	*Residences.*	*Rooms.*
JOHN MITCHELL ALLEN,	Annandale, N. J.,	42 Hertzog Hall.
MORRIS NORTON BEMUS,	Jamestown, N. Y.,	Metuchen.
LOUIS BISHOP,	E. New Brunswick,	E. New Bruns'k.
WILLIAM HENRY BOOCOCK,	Coxsackie, N. Y.,	43 Hertzog Hall.
W. EDWIN FLORANCE,	New Brunswick,	128 Neilson St.
J. DEPUY HASBROUCK,	High Falls, N. Y.,	79 George St.
EDWIN KNICKERBOCKER LOSEE,	Upper Red Hook, N. Y.	9 Paterson St.
STEPHEN HENRY OHLEN,†	Madison, N. J.,	54 Schureman St.
EUGENE B. MATTHEWS,	Bound Brook,	Bound Brook.
DEWITT T. REILEY,	New Brunswick,	Hamilton ave.
FRANK SEYMOUR SCUDDER,	Upper Red Hook, N. Y.,	9 Paterson.
ADRIAN VERMEULE, JR.,	New Brunswick,	Landing Bridge.
HENRY MARTIN VOORHEES,†	Flemington, N. J.,	59 Bayard St.
LOUIS AUGUSTUS VOORHEES,	New Brunswick,	75 Carroll Place.

SCIENTIFIC SECTION.

Names.	*Residences.*	*Rooms.*
ASHER ATKINSON,	New Brunswick,	Livingston av.
BENJ. CAMPBELL BAKEWELL,	Pittsburg, Pa.,	Hamilton St.
WILLIAM HENRY BARNES,	East Hampton, N.Y.,	75 George St.
ABRAHAM DEYO BRODHEAD,	Kingston, N. Y.,	63 Bayard St.
NORMAN D. CHASE,	Newark,	Newark.
M. MOUNT CORLE,	Neshanic,	59 Bayard St.

† Partial.

CHAS. DESHLER,	New Brunswick,	College av.
GEORGE WILLIAM HART,	Metuchen.	Metuchen,
WILLIAM LESUEUR HAYNES,	Raritan,	6 Paterson St.
OSCAR WILLIAM HENDERSON,	New York City,	69 Albany St.
PHILIP LINDSLEY,	Raritan,	49 Schureman St.
MONTFORT MATTHEWS,	Bound Brook,	Bound Brook.
GERARDUS L. MILLER,†	Englewood,	4 Schuyler St.
ARTHUR COYLE PAYNE,	College Point, L. I.,	Metuchen.
FRANK VAN BRAKLE,	Keyport. N. J.,	172 Burnet St.
CHARLES VAN WINKLE,	Passaic, N. J.,	69 Albany St.

SPECIAL COURSE IN CHEMISTRY.

FIRST YEAR.

Names.	*Residences.*	*Rooms.*
WM. CAMPBELL CLARK,†	Newark,	Newark.
CHAS. W. HARRISON,	Verona,	49 Schureman St.
LAWRENCE A. DONOHUE,†	New Brunswick,	Throop ave.
ARTHUR ELLIOT RUTHERFORD,	Newark,	Newark.

SECOND YEAR

Names.	*Residences.*	*Rooms.*
GEO. B. HURFF,	Hurffville,	62 Bayard St.
GEO. ADAMS WOODS,	Clifton, S. I.,	69 Albany St.

† Partial.

Recapitulation.

NEW JERSEY,	89
NEW YORK,	37
CONNECTICUT,	2
PENNSYLVANIA,	1
MICHIGAN,	3
INDIA,	2
IOWA,	1
TOTAL,	135

SUMMARY.

POST GRADUATES,	15

CLASSICAL DEPARTMENT.

SENIORS,	23
JUNIORS,	21
SOPHOMORES,	16
FRESHMEN,	14

SCIENTIFIC DEPARTMENT.

SENIORS,	6
JUNIORS,	3
SOPHOMORES,	14
FRESHMEN,	16

SPECIAL STUDENTS IN CHEMISTRY.

FIRST YEAR,	4
SECOND YEAR,	2
TOTAL IN COLLEGE,	135

Calendar.

1881-'82.

1881.	JUNE 22,	Wednesday: Commencement. Vacation.
"	SEPTEMBER 20,	Tuesday: First Session begins.
"	SEPTEMBER 20,	Tuesday: Examinations for admission.
"	DECEMBER 21,	Wednesday: First Session ends. Vacation.
1882.	JANUARY 5,	Thursday: Second Session begins.
"	JANUARY 26,	Day of Prayer for Colleges.
"	APRIL 5,	Wednesday: Second Session ends. Vacation.
"	APRIL 13,	Thursday: Third Session begins.
"	MAY 22, 23,	Monday and Tuesday: Senior Examinations.
"	JUNE 16, 17,	Friday and Saturday: Examinations for admission.
"	JUNE 18,	Sunday: Baccalaureate Sermon by the President.
"	JUNE 20.	Tuesday: Meeting of Alumni: Exercises of the Literary Societies: Junior Exhibition in the Evening
"	JUNE 21,	Wednesday: Commencement: Vacation.
"	SEPTEMBER 20,	Wednesday: First Session begins.
"	SEPTEMBER 20,	Wednesday: Examinations for admission.
"	DECEMBER 20,	Wednesday: First Session ends. Vation.
1883.	JANUARY 4,	Thursday: Second Session begins.

Classical Department.

1. *Conditions of Admission.*

Every applicant for admission must submit to the President proper testimonials of a good moral character.

Examinations for admission to the College will be held on Friday and Saturday before Commencement, (June 16 and 17,) beginning at 9 o'clock A. M., in the President's room. All who can do so are desired to present themselves on Friday. Applicants for admission may also be examined on Tuesday, September 19th, at the same hour and place.

Candidates for advanced classes must sustain a satisfactory examination upon the subjects previously studied by the class which they propose to enter, as well as those required for admission into the Freshman Class. Under this regulation students are admitted at any time during the Collegiate year.

Students who desire to pursue selected branches of study may do so, if properly prepared to pursue them with the regular classes. Special provision is made for such students in the Scientific Department.

The following, or a full equivalent, are the requirements for admission to the Freshman Class:

LATIN—Andrews' and Stoddard's or Harkness' Grammar; Fischer's Manual of Latin Grammar and Composition—First Part; Cæsar's Gallic War; Six Books of the Æneid; Cicero's Orations against Catiline, on the Manilian Law, for the Poet Archias, and for King Deiotarus.

GREEK—Hadley's Greek Grammar, including Prosody: Xenophon's Anabasis—three books; Arnold's First Greek Book, entire; Three Books of Homer's Iliad, and twenty sections of Arnold's Greek Prose Composition, or its equivalent.

ENGLISH AND MATHEMATICS—Arithmetic complete, including the Metric system; Algebra through Quadratic Equations (including Radicals), or the first eighteen chapters of Wentworth's Elements of Algebra; Plane Geometry—three books of Wentworth or an equivalent, including Exercises; Ancient and Modern Geography; English Grammar and Spelling; History of the United States.

GERMAN.—Ahn's Grammar, (Fischer's Edition), or its equivalent. Any condition in this subject must be made up before the close of the Sophomore year.

2. Suggestions in Regard to Preparation.

LATIN.—In preparing in Latin, the student should give more attention to the prose than the poetry of the language.

Besides the common rules he should be thoroughly drilled in the use of the moods and tenses, the consecution of tenses, the gerundive construction, etc., and should be taught to analyze the sentence into its different parts.

Fischer's Elements of Latin Grammar and Reader should be used in preparation as the best book to give thorough instruction in the elements of Latin.

LATIN COMPOSITION.—It is recommended that the student should begin the study of the language with Fischer's Manual, and that he should have as much exercise in writing Latin as possible.

PRONUNCIATION.—The system followed is the Roman, as given in Fischer's Manual. For correctness of pronunciation, the rules of prosody are necessary to those who have not been thoroughly accustomed to the correct sound of the Latin words.

GREEK.—The examination will be: I. In Hadley's Grammar. The applicant must be thoroughly familiar with the leading principles of the whole Grammar, including accent and quantity.

II. In Arnold's First Greek Book. The whole of this is required.

III. In pronunciation the accent must be followed in prose; but in poetry, regard will be had only to quantity.

While Arnold's First Greek Book, Xenophon's Anabasis (three books), and Homer's Iliad (three books), are the basis of examination, other authors will be taken instead, provided the pupil can pass upon a *full* equivalent.

MATHEMATICS.—Attention is especially called to the Metric System of Weights and Measures, a practical knowledge of which is indispensable, since it is *used* in the class-room, and to the essential importance of a thorough preparation in the elements of Algebra.

In preparing in Mathematics the student should not only have a thorough knowledge of the subjects required, *but he*

should acquire a proficiency and readiness in the application of the principles, and to that end the solution of numerous and varied examples is earnestly recommended. It is also desirable to cultivate habits of neatness and order in the presentation of work on the blackboard.

ENGLISH GRAMMAR AND GEOGRAPHY.—A good knowledge of *English Grammar* in all its parts is required for admission. This is presupposed in the studies that follow. The candidate is also examined in spelling, reading and punctuation. Ancient Geography should be studied in connection with the Classical Authors; and Modern Geography, including both Descriptive and Physical, is an essential requisite.

HISTORY.—Candidates for admission are examined in the History of the United States, with special reference to the colonization of the several States, the forms of government which existed previous to the Revolution, the causes and principal events of the Revolution, the period of the Confederation, the establishment of the Federal Constitution, with the general history subsequent to that event.

Seavey's Goodrich's History of the United States is considered the best book to use in preparation; and it will be taken as the standard for examination. This work is also recommended to the Public Schools of New Jersey by the State Superintendent of Public Instruction. A full equivalent, however, will be accepted; more regard being paid to the quality of the preparation than to the particular book used.

3. *Course of Instruction.*

The COURSE OF INSTRUCTION occupies four years, with three terms or sessions in each year.

The following is a scheme of the studies of the course. This scheme is not always strictly followed, either in the order of studies or the use of the particular text-books named; but it furnishes an exhibit of the amount of work required of students during the four years, and may indicate to candidates for advanced standing the equivalents which will be accepted from them:—

FRESHMAN CLASS.

Exercises during the year in Composition and Declamation.
Bible Class Sabbath morning.

FIRST TERM.

1. *Latin*—Livy; Roman History. 2. *Greek*—Lucian's Timon (three books); Wilkins' Elementary Greek Exercises. 3. *Mathematics*—Wentworth's Geometry,

from Book IV. 4. *Natural History*—Dalton's Physiology; Lectures. 5. *Rhetoric*—D. J. Hill; Lectures. 6. *French*.

SECOND TERM.

1. *Latin*—Livy; Composition; Roman History. 2. *Greek*—Demosthenes' Olynthiac Orations, 2d and 3d, and one Philippic of Demosthenes; Wilkins' Elementary Greek Exercises. 3. *Mathematics*—Wentworth's Geometry completed; Wentworth's Algebra from Logarithms. 4. *Natural History*—Zoology. 5. *English Literature*—Lounsbury's History of the English Language; Study of Words, Trench. 6. *Elocution*—Lectures. 7. *French*.

THIRD TERM.

1. *Latin*—Horace; Composition. 2. *Greek*—Thucidides, one book; Wilkins' Elementary Greek Exercises completed. 3. *Mathematics*—Loomis' Algebra completed. 4. *Natural History*—Gray's Botany. 5. *English Literature*—Morley's Manual of English Literature, with Readings and Lectures. 6. *French*.

Sophomore Class.

Exercises during the year in Composition and Declamation.

Bible Class Sabbath morning.

FIRST TERM.

1. *Latin*—De Officiis; Latin Composition; Mythology. 2. *Greek*—Greek Lyric Poets, Tyler; Wilkins' Greek Prose Composition; Lectures on Greek Literature. 3. *Mathematics*—Trigonometry, Plane and Spherical, with application to Surveying. 4. *Modern History*—Freeman's Outlines, with Written Essays. 5. *English Literature*—Shakespeare, Bacon, Essays in Criticism.

SECOND TERM.

1. *Latin*—Tacitus; Plautus; Antiquities; Composition. 2. *Greek*—Demosthenes on the Crown, Tyler or D'Ooge; Wilkins' Greek Prose Composition; Lectures on Numismatics, with Illustrations. 3. *Mathematics*—Trigonometry completed; Analytic Geometry, Bowser. 4. *Modern History*—Freeman's Outlines, with Written Essays. 5. *English Literature*—Essays in Literary Criticism, and Examinations upon the Private Reading of Authors.

THIRD TERM.

1. *Latin*-Horace; Juvenal; Composition. 2. *Greek*-Aristophanes' Birds; Wilkins' Greek Prose Composition completed; Greek Antiquities; Lectures on the History and Deciphering of Manuscripts, with Illustrations. 3. *Mathematics*—Analytic Geometry completed. 4. *Constitutional History of England*—Creasy. 5. *English Literature*—Essays in Literary Criticism, and Examinations upon the Private Reading of Authors.

JUNIOR CLASS.

Exercises during the year in Composition and Original Declamation.

Bible Class Sabbath morning.

FIRST TERM.

1. *Natural Philosophy*—Goodeve and Deschanel. 2. *Inorganic Chemistry*—Lectures; Barker. 3. *Mental Philosophy*—Porter's Elements of Intellectual Philosophy, and Lectures. 4. *German and French.* 5. *Elective Studies*—One of which is to be pursued. 1. *Latin*—Quintilian. 2. *Mathematics*—Differential and Integral Calculus, Bowser. 3. *Analytical Chemistry*—Blowpipe Analysis, Nason; Qualitative Analysis, Prescott; Lectures; Laboratory Practice. 4. *English*—Anglo-Saxon Early English; Chaucer.

SECOND TERM.

1. *Natural Philosophy*—Goodeve and Deschanel. 2. *Inorganic Chemistry*—Lectures; Barker. 3. *Mental Philosophy*—Porter's Elements of Intellectual Philosophy, and Lectures. *Logic*—Thompson's Outlines of the Laws of Thought. 4. *German and French.* 5. *Elective Studies*—One of which is to be pursued. 1. *Greek*—Plato's Phædo, Wagner's Edition; Wilkins' Manual of Composition. 2. *Mathematics*—Calculus continued. 3. *Analytical Chemistry*—Qualitative Analysis, Prescott; Lectures; Laboratory Practice. 4. *English*—Spencer, Shakespeare.

THIRD TERM.

1. *Astronomy*—Newcomb and Holden. 2. *Inorganic Chemistry*—Lectures; Barker. 3. *History of Civilization*—Guizot. 4. *German and French.* 5. *Elective Studies*—One of which is to be pursued. 1. *Latin.* 2. *Mathematics*—Applications of the Calculus. 3. *Analytical Chemistry*—Qualitative Analysis, Prescott; Lectures; Laboratory Practice. 4. *English*—Bacon, Hooker, Milton.

SENIOR CLASS.

Exercises during the year in Composition and Original Declamation.

Bible Class Sabbath morning.

FIRST TERM.

1. *Chemistry*—Organic Chemistry; Lectures. 2. *Political Economy*—Bowen, and Perry; Lectures. 3. *Moral Philosophy*—Calderwood's Handbook; Lectures. 4. *Chemical Physics*—Deschanel; Lectures. 5. *Elective Studies*—One of which is to be pursued. 1. *Greek*—Bucholz' Anthology; Trendelenberg's Elementa Logices Aristoteleæ; Wilkins' Manual of Composition. 2. *Astronomy*—Loomis' Practical Astronomy, and Observatory work; Lectures. 3. *Modern Languages*—German. 4. *Analytical Chemistry*—Quantitative Analysis, Cairns; Lectures; Laboratory Practice. 5. *Hebrew*—Extra. 6. *English*—Dryden; Pope.

SECOND TERM.

1. *Chemistry*—Organic Chemistry; Lectures. 2. *International Law*—Woolsey; Lectures. 3. *Constitution of the United States*—Pomeroy and Cooley. 4. *Moral Philosophy*—Butler's Analogy. 5. *Chemical Physics*—Deschanel; Lectures. 6. *Elective Studies*—One of which is to be pursued. 1. *Latin*. 2. *Astronomy*—Practical Astronomy continued. 3. *Modern Languages*—German. 4. *Analytical Chemistry*—Quantitative Analysis, Cairns; Lectures; Laboratory Practice. 5. *Hebrew*—Extra. 6. *English*—Addison, and other Authors.

THIRD TERM.

1. *Geology*—Lectures. 2. *Architecture*—Lectures. 3. *Moral Philosophy*—Butler's Analogy. 4. *Elective Studies*—One of which is to be pursued. 1. *Greek*—Porphyry's Isagoge and Aristotle's Categoriæ, Bekker's Edition. Lectures on the Organon. 2. *Modern Languages*—German. 3. *Analytical Chemistry*—Quantitative Analysis, Cairns; Lectures; Laboratory Practice. 4. *Astronomy*—Practical Astronomy continued. 5. *Hebrew*—Extra. 6. *English*—Wadsworth, and other Authors.

¶ *Remarks on the Course of Study.*

In the above schedule all the Studies up to the close of the Sophomore year are obligatory, and are intended to be of such a character as will be equally desirable whatever subsequent profession or career is chosen. During the Junior and Senior years some subjects are required of all regular students, while several others are made elective, one at least of which must be pursued.

MORAL PHILOSOPHY AND THE EVIDENCES OF CHRISTIANITY.

Moral Philosophy is taught during the Senior year by the study of text-books, by comments and criticisms, and by lectures. A course of Biblical Instruction continues throughout the entire four years. A Sabbath morning Bible lesson, which all the students attend, is devoted to the critical study of the Scriptures—especially the Greek New Testament. Hebrew is taught as an extra study during the Senior year.

LANGUAGES.

Latin.—Prose authors of the Classical period are read first, and the thorough grammatical drill is given upon the language in its most correct form. Next a Prose Author of the post-classical period is read. Then the poets, at least one in each literary period, are taken up in their chronological order. The course is concluded with a rhetorical and a philosophical treatise. Exercises in Latin Composition are continually required of the student.

Greek.—The Classical Greek authors are read during the entire Freshman and Sophomore years, one term of the Junior, and two terms of the Senior year. The course is intended to embrace at least one complete treatise from a leading author belonging to each period from Homer to Lucian. And while the amount read is distinctly indicated by the Catalogue, it is the purpose to vary the authors, or portions from the same author, every year. Term examinations are entirely in writing. They are from printed slips, different for each pupil, containing the passages for translation, with accompanying questions.

Promising students are encouraged to take special courses of study, in addition to the regular class work; and private instruction, supplemented by an efficient Library, is constantly given without charge. Assistance is also offered in Chaldee, Arabic and Sanskrit. The following books of reference are recommended: Smith's Classical Dictionaries, 6 vols; Jelf's Greek Grammar; Becker's Charicles; Liddell and Scott's Lexicon, 6th Oxford Edition.

English Language and Literature.—The course in English embraces the elective study of Anglo-Saxon and early English, with the required study of the history of the language and the history of the literature. The principal English Classics are read in order. The selection is varied every year. A course of private reading is prescribed, upon which examinations are held the 2d and 3d terms of the Sophomore year. Essays in literary criticism are required during the same year. The elective study of the language and literature is pursued during the Junior and Senior years.

French and German are studied during the Junior and Senior years, and while the correct use and pronunciation of the spoken languages are taught, special stress is laid upon the ability to read with fluency the standard authors. The seniors have frequent practice in German conversational exercises.

Hebrew.—This language is taught as an extra study during the Senior year to those who desire it.

MATHEMATICS, NATURAL PHILOSOPHY AND ASTRONOMY.

The required studies in Mathematics include Geometry, with problems and exercises in Geometrical invention; Algebra, Plane and Spherical Trigonometry, with application to problems in Surveying and Astronomy, and Analytic Geometry.

Analytic Geometry is characterized by the use of equations to represent form as well as magnitude, and hence permits the application of Algebra as an aid in geometrical reasoning. These studies are pursued during the first two years of the course.

Those who wish to become acquainted with the more elegant and productive methods of Mathematical investigation have an opportunity to do so by electing in the Junior year the study of the Calculus and its applications. This branch considers quantity in a state of change, and shows the nature and use of infinitesimals in investigating the relations of quantities.

Care is taken throughout that every principle receives a rigorous demonstration and that applications are made of it as far as practicable. No principle is thoroughly learned by the student until he can apply it.

Elementary Astronomy is taught during the last term of the Junior year to students of the Classical and Engineering courses. The study of Theoretical and Practical Astronomy, with the use of the instruments of the Observatory, is elective in the Senior year. It is desirable that those who intend to take elective Astronomy should take the elective Mathematics of the Junior year, that they may be prepared for lectures in the more advanced part of the course.

The Daniel S. Schanck Observatory of Rutgers College is supplied with a 6½ inch equatorial telescope, a meridian circle, sidereal clock, and other instruments for astronomical work.

CHEMISTRY AND NATURAL HISTORY.

The course in this department begins with the Freshman year, in which the leading subjects of Natural History are taught. Subsequently the instruction is by lectures, and covers the ground of Chemistry, Chemical Physics, Technology and Geology. The instruction is constantly accompanied by experiments and illustrations. And the extensive collections of minerals, fossils, geological specimens, shells, and other objects of Natural History are arranged for study in the Museum of Geological Hall, and the rooms are opened at stated times.

In the Junior and Senior years students may elect a course in Analytical Chemistry with Laboratory Practice and Lectures. The experimental studies in this department have proved remarkably attractive and profitable to those intending to devote themselves to Law or Medicine, or to business pursuits.

During the first term of the Junior year Blowpipe Analysis

is taught. The students after learning the necessary manipulations for blowing glass, repeat the experiments in Nason's Blowpipe Analysis. When they have become conversant with the various reactions, they proceed to actual analysis, or detection of substances by the blowpipe. Commencing with substances containing two or three elements, they are in a short time able to analyze complex compounds. Lectures and recitations are held during the course.

After analyzing a number of substances by the blowpipe, the student passes into the larger Laboratory, where he begins his studies in Qualitative Analysis. Here in a similar manner he learns the reactions, makes the tests, and proceeds rapidly from analysis of simple substances to the most complex. The theory of analysis is minutely explained in the lectures and recitations on the subject. Quantitative Analysis now follows. The student having learned the means of detecting the constituents of a substance, proceeds to the determination of their *amount*. He first analyzes pure salts of known composition, so that his results may be compared with the theoretical percentages. Having obtained a sufficient accuracy in his work, he analyzes substances of unknown composition as minerals, metals, ores, waters, urines, poisons, fertilizers, coals, etc. Having thus become thoroughly acquainted with the theory and practice of analytical chemistry, the student undertakes original experimental investigations in the various branches of pure and applied chemistry.

RHETORIC AND METAPHYSICS.

Elocution.—During the Freshman year lectures are delivered on the general principles of elocution, and a practical application of these principles is made by appropriate exercises in Declamation, in which the members of the class are carefully drilled. In addition to this there are exercises in Oratory by all the students, both in the class-room and in the College Chapel. The Freshman and Sophomore classes use selected pieces, and the Juniors and Seniors are required to deliver original orations.

In the department of Rhetoric begun during the Freshman year an effort is made to teach the principles of Composition, not as laid down in mechanical rules, but as springing from psychological laws and relations. Ideas presented in accordance with various mental requirements and influences are shown to contain the true philosophy of rational and effective discourse.

And illustrative references to the Masterpieces of Oratory, and to other forms of the best English Classical Literature are freely given. Essays are required throughout the entire course.

Mental Philosophy.—Porter's Elements of Intellectual Philosophy is employed as a text book during the first term and a part of the second term of the Junior year. The characteristic doctrines of the Distinctive Schools in Ancient and Modern Philosophy are presented in a course of Lectures upon the representative thinkers in these schools. Much attention is paid to the most important Philosophical and Metaphysical questions at issue among living speculators. And the results of recent critical discussions together with comments are interspersed with the daily recitations. The student is urged to become familiar with some of the works of Plato translated by Jowett, of Locke, Berkely, Reid, Dugald Stewart, Thomas Brown, Hamilton, Coleridge, J. S. Mill, Herbert Spencer; and with the summaries of the systems of Kant, Fichte, Shelling, Hegel, and of others found in Uberweg's History of Philosohpy.

Logic is taught by a text-book, but special care is taken to enforce a practical application of logical formulas in the resolution of arguments, and the detection of sophistries. To this end illustrative examples are drawn from different authors and much oral instruction is given.

HISTORY, POLITICAL ECONOMY AND CONSTITUTIONAL LAW.

The scheme of studies in this department includes an outline sketch of Modern History, beginning with the downfall of the Roman Empire and tracing the formation and growth of modern States; a view of the philosophy of history as given by Guizot; and a study of the leading principles of Political Economy, Constitutional Law (with special reference to the Constitutions of Great Britain and the United States) and International Law. Instruction is given by text-books, lectures and conversational discussions. The following, among others, are recommended to students as books of reference: Hallam, and Stubbs, on the English Constitution; the Federalist, Story, Kent, Jameson, Curtis, and Von Holst, on the Constitution of the United States; Kent, Woolsey, Wheaton and Phillimore, on International Law; Adam Smith (Roger's edition), Mill, Fawcett, Cairnes, and Carey, on Political Economy. These studies begin in the Sophomore year and are continued during portions of the two following years.

Scientific Department.

RUTGERS SCIENTIFIC SCHOOL.

BY ACT OF THE LEGISLATURE CONSTITUTED THE STATE COLLEGE FOR AGRICULTURE AND THE MECHANIC ARTS.

BOARD OF VISITORS.

(APPOINTED BY THE GOVERNOR.)

FIRST CONGRESSIONAL DISTRICT.

	Residences.	*Terms Expire.*
Hon. THOMAS H. DUDLEY,	CAMDEN,	April 12, 1882.
I. M. SMALLEY, Esq.,	ROADSTOWN,	April 12, 1883.

SECOND CONGRESSIONAL DISTRICT.

Hon. WILLIAM PARRY,	CINNAMINSON,	April 12, 1883.
WILLIAM S. TAYLOR, Esq.,	BURLINGTON,	April 12, 1882.

THIRD CONGRESSIONAL DISTRICT.

COLLIN B. MEIRS, Esq.,	CREAM RIDGE,	April 12, 1882.
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CORNELIUS A. WORTENDYKE, Esq.,	WORTENDYKE,	April 12, 1883.

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PATRICK T. QUINN, Esq.,	NEWARK,	April 12, 1882.
WILLIAM M. FORCE, Esq.,	NEWARK,	April 12, 1883.

SEVENTH CONGRESSIONAL DISTRICT.

ABRAHAM W. DURYEE, Esq.	NEW DURHAM,	April 12, 1882.
JAMES STEVENS, Esq.,	JERSEY CITY,	April 12, 1882.

OFFICERS:

Hon. WILLIAM PARRY, *Chairman.*

GEORGE H. COOK, *Secretary.*

1. *Conditions of Admission.*

Every applicant for admission must be sixteen years of age, and must submit to the President proper testimonials of a good moral character. If an applicant for a State Scholarship, he must also present to the President a certificate of appointment from the County Superintendent.

Examinations for admission will be held on the same days as for the Classical Department, viz: on the Friday and Saturday preceding Commencement, June 16th and 17th, beginning at 9 o'clock A. M., in the President's room. Applicants for admission may also be examined on Wednesday, September 20th, at the same hour and place.

Students may enter an advanced class either at the beginning of the College year or at other times, on condition that they sustain a satisfactory examination both on the preliminary studies and on those already passed over by the class which they propose to enter.

Provision is made for such students as wish to devote themselves to special subjects, if they are prepared to go on profitably with the regular classes in those subjects.

The following are the subjects on which those desiring to enter the Freshman class of the Scientific Department are examined. As they are all such as can be acquired in our best common schools, it is insisted that the preparation in them shall be thorough and complete:

1. Arithmetic complete, including the Metric System. 2. Algebra, to Series. 3. Plane Geometry. The *whole* of Plane Geometry will be required. 4. English Grammar—including spelling. 5. Descriptive Geography. 6. Physical Geography. 7. History of the United States.*

In preparing the student for this course, it is recommended that he be drilled thoroughly in Arithmetic, as a clear understanding of its simple elementary and practical principles is essential to a good Mathematician. His preparation in Algebra to Series should also be as complete. In addition to understanding the PRINCIPLES of the science he must fix them in his memory, and learn their bearing and utility, and for this reason he must pay great attention to the solution of practical examples. What is needed is ability to solve ordinary examples with facility and explain them thoroughly.

*For particulars see page 17

Attention is specially called to the Metric System of Weights and Measures, a practical knowledge of which is indispensable, since it is *used* in the class-room.

2. *Courses of Study.*

Four distinct courses of study are included in the schedule which follows:

I. A COURSE IN CIVIL ENGINEERING AND MECHANICS.
II. A COURSE IN CHEMISTRY AND AGRICULTURE.
III. A SPECIAL COURSE IN CHEMISTRY.
IV. A SPECIAL COURSE IN AGRICULTURE.

During the first year the studies of the two full courses are the same, and are designed to furnish a suitable introduction to the pursuit of the higher branches in either.

During the last three years the subjects of Higher Mathematics, Mechanics and Engineering in the Engineering course are replaced by Analytical Chemistry, practice in the Laboratory, and Agriculture in the other. The remaining subjects are pursued by the students of both courses together.

The course of study for the first year in this Department is arranged so as to be complete in itself. It is especially designed to meet the wants of those who cannot take the entire four years' course, but who desire to fit themselves as Land Surveyors. Students leaving at this period of the course, receive from the Faculty a certificate of their attainments.

Students in this Department have daily practice in Draughting, with exercises and Problems in Geometrical Constructions, in Descriptive Geometry, Topographical, Mechanical and Architectural Drawing, and in Graphical Statics. Several students who had acquired sufficient skill obtained positions as draughtsmen in various offices in the City during their course.

SPECIAL STUDENTS are received, and allowed to take any part of the above course, provided their previous education is sufficient; and particular provision is made for them, especially in the Laboratory, in Mathematics, Surveying and Draughting.

THE SPECIAL COURSES in Chemistry and Agriculture occupy two years. The Laboratory is open from 9 A. M. until 5 P. M.

Students are instructed in Blowpipe Analysis; Determinative Mineralogy; Analysis of Ores, Minerals, Coals, Waters, Technological Products, etc.; Analysis of Soils, Fertilizers, Agricultural Products and Foods; Volumetric Analysis of Gases; Detection of Poisons; Analysis of Urine and Animal

products and Microscopical examinations. The course of study depends to some extent upon the student's future pursuit in life.

MILITARY TACTICS.—In accordance with the requirements of the Law, provision is made in this Department for the study of Military Tactics.

SPECIAL PROVISION IS ALSO MADE FOR STUDENTS WHO DESIRE, AFTER COMPLETING THE REGULAR COURSE OF STUDY, TO TAKE POST-GRADUATE STUDIES.

In connection with the instruction in Agriculture in this Department, the Trustees maintain an extensive model farm, designed to illustrate the principles of agriculture, and also to test by experiment the value of different systems. It is under the charge of the Professor of Agriculture, and *every Wednesday* during term time will be devoted to giving upon the farm explanations of the experiments and their results, to the students in agriculture, as well as to any farmers who may desire to avail themselves of this privilege.

3. Organization.

This department of the College has been designated by the Legislature of New Jersey, in accordance with the law of Congress:

THE STATE COLLEGE FOR THE BENEFIT OF AGRICULTURE AND THE MECHANIC ARTS.

Under this law, a certain number of students from the State of New Jersey are received into this department of the College, and educated free of expense for tuition. This law also provides for the appointment by the Governor of a Board of Visitors, two from each Congressional District, who possess general powers of supervision and control. The State pupils are admitted on the recommendation of the Superintendent of Schools in each county. They are distributed among the counties in proportion to their population as follows:

STATE SCHOLARSHIPS.

ATLANTIC,	1	MIDDLESEX,	2
BERGEN,	1	MONMOUTH,	2
BURLINGTON,	3	MORRIS,	2
CAMDEN,	2	OCEAN,	1
CAPE MAY,	1	PASSAIC,	2
CUMBERLAND,	1	SALEM,	1
ESSEX,	6	SOMERSET,	1
GLOUCESTER,	1	SUSSEX,	1
HUDSON,	6	UNION,	2
HUNTERDON,	1	WARREN,	1
MERCER,	2		—
			40

COURSES OF STUDY.

FRESHMAN YEAR.

Exercises during the year in Composition and Declamation.
Bible Class Sabbath morning.

FIRST TERM.

1. *French*. 2. *Mathematics*—Loomis' Algebra, Geometry finished. 3. *Natural History*—Dalton's Physiology; Lectures. 4. *Rhetoric*—D. J. Hill; Lectures. 5. *Draughting*—Practical Geometry, Plane. 6. *English Literature*—Hales' Longer English Poems.

SECOND TERM.

1. *French*. 2. *Mathematics*—Trigonometry, Plane and Spherical—Loomis. 3. *Natural Philosophy*—Lectures. 4. *Elocution*—Lectures. 5. *English Literature*—Lounsbury's History of the English Language; Study of Words, Trench. 6. *Draughting*—Coloring, Topographical Signs, &c.

THIRD TERM.

1. *French*. 2. *Mathematics*—Surveying—Murray. 3. *Natural History*—Gray's Botany; Lectures. 4. *English Literature*—Manual and Lectures 5. *Draughting*—Mapping, with sections, &c.

SOPHOMORE YEAR.

COURSE IN CIVIL ENGINEERING AND MECHANICS.

Exercises during the year in Composition and Declamation.
Bible Class Sabbath morning.

FIRST TERM.

1. *Railroad Curves*—Henck's Field Book. 2. *Descriptive Geometry*—Church. 3. *Chemistry*—Barker; Lectures. 4. *Mental Philosophy*—Porter's Elements of Intellectual Philosophy. 5. *History*—Freeman's Outlines. 6. *Draughting*—Practical Geometry, Solid. 7. *Essays in Literary Criticism.*

SECOND TERM.

1. *Descriptive Geometry*—Church; Construction of Problems. 2. *Analytical Geometry*, Bowser. 3. *Chemistry*—Barker; Lectures. 4. *Mental Philosophy*—Porter's Elements of Intellectual Philosophy. 5. *History*—Freeman' Outlines. 6. *Draughting*—Intersection of Surfaces, &c. 7. *Essays in Literary Criticism.*

THIRD TERM.

1. *Analytical Geometry*—Completed, Bowser. 2. *Shades, Shadows and Perspective*—Church; Construction of Problems. 3. *Chemistry*—Barker; Lectures. 4. *Mental Philosophy*—Porter's Elements of Intellectual Philosophy. 5. *History*—Creasy's Constitutional History of England. 6. *Draughting*—Linear Perspective, &c. 7. *Essays in Literary Criticism.*

SOPHOMORE YEAR.

COURSE IN CHEMISTRY AND AGRICULTURE.

Exercises during the year in Composition and Declamation.

Bible Class Sabbath morning.

FIRST TERM.

1. *Blowpipe Analysis*—Nason. 2. *Qualitative Analysis*—Douglass and Prescott; Lectures; Laboratory Practice. 3. *Descriptive Geometry*—Church. 4. *Chemistry*—Barker; Lectures. 5. *Mental Philosophy*—Porter's Elements of Intellectual Philosophy. 6. *History*—Freeman's Outlines. 7. *Draughting*—Practical Geometry, Solid. 8. *Essays in Literary Criticism.*

SECOND TERM.

1. *Qualitative Analysis*—Douglass and Prescott; Lectures; Laboratory Practice. 2. *Descriptive Geometry*—Church; Construction of Problems. 3. *Chemistry*—Barker; Lectures. 4. *Mental Philosophy*—Porter's Elements of Intellectual Philosophy. 5. *History*—Freeman's Outlines. 6. *Draughting*—Intersection of Surfaces, &c. 7. *Essays in Literary Criticism.*

THIRD TERM.

1. *Qualitative Analysis*—Douglass and Prescott; Lectures; Laboratory Practice. 2. *Shades, Shadows and Perspective*—Church; Construction of Problems. 3. *Chemistry*—Barker; Lectures. 4. *Mental Philosophy*—Porter's Elements of Intellectual Philosophy. 5. *History*—Creasy's Constitutional History of England 6. *Draughting*—Linear Perspective, &c. 7. *Essays in Literary Criticism.*

JUNIOR YEAR.

COURSE IN CIVIL ENGINEERING AND MECHANICS.

Exercises during the year in Composition and Original Declamation.

Bible Class Sabbath morning.

FIRST TERM.

1. *German.* 2 *Differential Calculus*—Bowser. 3. *Natural Philosophy*—Deschanel. 4. *Political Economy*—Bowen and Perry. 5 *Draughting*—Lettering, &c.

SECOND TERM.

1. *German.* 2 *Differential Calculus*—completed. 3. *Integral Calculus*—Bowser. 4. *Natural Philosophy*—Deschanel. 5. *Constitutional History of the United States*—Textbook, Andrews, and Lectures. 6. *Draughting*—Shading, &c.

THIRD TERM.

1. *German*. 2. *Integral Calculus*--completed. 3. *Astronomy*—Newcomb and Holden 4. *History of Civilization*—Guizot. 5. *Draughting*—Construction.

JUNIOR YEAR.

COURSE IN CHEMISTRY AND AGRICULTURE.

Exercises during the year in Composition and Original Declamation

Bible Class Sabbath morning

FIRST TERM.

1 *German*. 2. *Analytical Chemistry*—Quantitative Analysis, Fresenius, Cairns; Lectures; Laboratory Practice. 3. *Agriculture*—Lectures at the Farm. 4. *Natural Philosophy*—Goodeve and Deschanel. 5. *Political Economy*—Bowen and Perry. 6. *Draughting*—Lettering, &c.

SECOND TERM.

1. *German*. 2. *Analytical Chemistry*—Quantitative Analysis, Fresenius, Cairns; Lectures; Laboratory Practice. 3. *Agriculture*—Lectures. 4. *Natural Philosophy* —Goodeve, Deschanel. 5. *Constitutional History of the United States*—Andrews; Lectures. 6. *Draughting*—Shading, &c.

THIRD TERM.

1. *German*. 2. *Analytical Chemistry*—Quantitative Analysis, Fresenius, Cairns; Lectures; Laboratory Practice. 3. *Agriculture*—Vegetable Physiology. 4. *History of Civilization*—Guizot. 5. *Draughting*—Construction. 6. *Mineralogy*.

SENIOR YEAR.

COURSE IN CIVIL ENGINEERING AND MECHANICS

Exercises during the year in Composition and Original Declamation.

Bible Class Sabbath morning.

FIRST TERM.

1 *Mechanics*—Tate, or Wood. 2. *Engineering*—Mahan. 3. *Organic Chemistry*—Lectures. 4. *Moral Philosophy*—Calderwood's Handbook. 5. *Draughting*—Machinery and Architecture. 6. *Chemical Physics*—Deschanel.

SECOND TERM.

1. *Engineering*—Mahan. 2. *Mechanics*—Tate, or Wood: Bridge Building, Wood.

3. *Organic Chemistry*—Lectures. 4. *Moral Philosophy*—Butler's Analogy. 5. *Draughting*—Engineering. 6. *Chemical Physics*—Deschanel.

THIRD TERM.

1. *Engineering*—Bridge Building and Railway Practice; Geodesy. 2 *Geology*—Lectures. 3. *Moral Philosophy*—Butler's Analogy. 4. *Draughting*—Thesis.

Senior Year.

Course in Chemistry and Agriculture.

Exercises during the year in Composition and Original Declamation.
Bible Class Sabbath morning.

FIRST TERM.

1. *Applied Chemistry*—Wagner; Lectures. 2. *Organic Chemistry*—Lectures. 3 *Principles of Agriculture*—Lectures. 4. *Analytical Chemistry*—Quantitative Analysis, Fresenius, Cairns; Lectures; Laboratory Practice. 5. *Moral Philosophy*—Calderwood's Handbook. 6. *Draughting*. 7. *Chemical Physics*—Deschanel.

SECOND TERM.

1. *Applied Chemistry*—Wagner; Lectures. 2. *Agriculture*—Its Methods and Products. 3. *Organic Chemistry*—Lectures. 4. *Analytical Chemistry*—Quantitative Analysis, Fresenius. Cairns; Lectures; Laboratory Practice. 5. *Moral Philosophy*—Butler's Analogy. 6. *Draughting*. 7. *Chemical Physics*—Deschanel.

THIRD TERM.

1. *Agriculture*—Animal Physiology; Care and Management of Domestic Animals. 2. *Geology*—Lectures. 3. *Moral Philosophy*—Butler's Analogy. 4. *Draughting*. 5. *Chemical Investigations*. 6. *Thesis*.

SPECIAL COURSE IN CHEMISTRY.

FIRST YEAR.

First Term.—1. Inorganic Chemistry. 2. Blowpipe Analysis. 3. Qualitative Analysis. 4. French. 5. Chemical Physics. 6. Thesis.

Second Term.—1 Inorganic Chemistry. 2. Qualitative Analysis 3. Chemical Physics. 4. French. 5. Thesis.

Third Term.—1. Inorganic Chemistry. 2. Quantitative Analysis. 3. Stoichiometry. 4. French. 5. Thesis.

Journal of Travel or Observation.

SECOND YEAR.

First Term.—1 Organic Chemistry. 2. Quantitative Analysis. 3. Applied

Chemistry. 4. Chemical Physics. 5. German. 6. Thesis.

SECOND TERM.—1. Organic Chemistry. 2. Quantitative Analysis. 3. Applied Chemistry. 4. Chemical Physics. 5. German. 6. Thesis.

THIRD TERM.—1. Geology. 2. Applied Chemistry. 3. Chemical Physics. 4. Mineralogy. 5. German.

SPECIAL COURSE IN AGRICULTURE.

FIRST YEAR.

FIRST TERM.—1. Algebra. 2. Geometrical Problems. 3. Inorganic Chemistry. 4. Physiology and Zoology.

SECOND TERM.—1. Geometry. 2. Coloring and Topographical Drawing. 3. Analytical Chemistry. 4. Mineralogy. 5. Book-Keeping.

THIRD TERM.—1. Trigonometry. 2. Mapping. 3. Analytical Chemistry. 4. Botany. 5. Farm Accounts.

SECOND YEAR.

FIRST TERM.—1. Surveying. 2. Projections. 3. Natural Philosophy. 4. Study of Domestic Animals. 5. Systematic Agriculture.

SECOND TERM.—1. Navigation and Nautical Astronomy. 2. Architectural Drawing. 3. Physics. 4. Geology. 5. How Crops Grow.

THIRD TERM.—1. Leveling and Road Making. 2. Machine Drawing. 3. Meteorology. 4. Botany. 5. How Crops Feed.

Composition and Declamation throughout the whole course.

The hours of lectures or recitations are four each day, besides work in the Chemical Laboratory.

Students who pass their regular examinations in the above subjects, will, at the close of their course, receive certificates of their attainments. And at the end of two or more years further, if they shall have pursued practical agriculture on a farm, and shall then pass satisfactory examinations in prescribed subjects on Agricultural principles and practice before a Board of Examiners of the Scientific School, they shall receive Diplomas in Agriculture.

Examinations.

The classes in both departments are examined at the close of each term. The examinations are partly oral and partly written, and have an important bearing upon the standing of the student in his class.

At the end of the first and third terms, the examinations of the classes of the Scientific section are held in the presence of the Board of Visitors, who then make their semi-annual visits to the Institution.

At the end of the third term, each member of the Graduating Class of the Scientific Section is required to present a thesis on some scientific subject, a copy of which is to be written out upon paper suitable for binding, and deposited in the College Library.

The final examination of the Graduating Classes is held four weeks before Commencement, from which time they are subject to such duties as are required for their preparation for Commencement.

Graduation.

To all members of the Graduating Class of the Classical Department, in full and regular standing, the Trustees grant diplomas conferring the Academic degree of Bachelor of Arts.

To all members of the Graduating Class of the Scientific Department, in full and regular standing, the Trustees grant diplomas conferring the Academic degree of Bachelor of Science.

To all members of the Graduating Class, in either Department, who have satisfactorily pursued special courses of study, a certificate is granted stating the studies pursued and the attainments made.

To those students who have pursued satisfactorily the studies of the first two years of the Scientific Course, and who desire to leave at that time, a special certificate is granted by the Faculty.

The following regulations have been adopted by the Board of Trustees in regard to the graduating exercises at Commencement:

1. The privilege of speaking at Commencement shall be open

without distinction to the Classical and Scientific Sections of the Graduating Class.

2. The graduating honors shall be as follows:

FIRST HONOR—Latin Salutatory.
SECOND HONOR—English Salutatory.
THIRD HONOR—Philosophical Oration.
FOURTH HONOR—Scientific Oration.

If the first honor be awarded to a member of the Scientific Section of the Graduating Class, he shall deliver a German Salutatory.

3. The Valedictory shall be regarded as a *rhetorical honor*, and shall be awarded to the best writer and speaker in his class (to be determined by his grade in composition and elocution during the Junior and Senior years), provided, that he must have been a member of his class for two years, and have a general grade in scholarship among the best two-thirds.

4. Eleven other speakers shall be chosen, of whom six shall be chosen by grade in scholarship, provided, that in their grade in composition and elocution during their Junior and Senior years they be among the best two-thirds; and five shall be chosen by grade in composition and elocution during their Junior and Senior years, provided, that in their general grade in scholarship they be among the best two-thirds.

DEGREES AND POST-GRADUATE STUDIES.

Bachelors of Art and Bachelors of Science shall be entitled on application to receive three years after graduation the degrees of A. M. and M. S. respectively, on one of the following conditions:

1. On presenting a certificate of graduation from a Theological Seminary, Law School or Medical College, or a certificate of admission to the practice of Law or Medicine.

2. On presenting evidence of other intellectual progress satisfactory to the Faculty.

3. On passing an examination before a committee of the Faculty on a prescribed course of study, and presenting a thesis to be approved by the Faculty.

4. Until 1882, however, no examination will be required except on the subject of the thesis presented.

The degrees of Ph. D. and D. Sc. will be conferred upon resident graduates of the College who shall pursue for two years prescribed courses of study under the direction of the Faculty.

The conditions will be made known on application.

Regulations.

Morning prayers are attended in the College Chapel each morning, except Saturday and Sunday, at 8.40 o'clock.

The recitation hours extend from 9 o'clock A. M. to 1 o'clock P. M., during five days of the week.

A Biblical Recitation is held Sabbath morning in the College Chapel at 9.30 o'clock, which all students are required to attend.

A sermon is preached every Sabbath morning in the College Chapel at 10.30 o'clock. Students are required to be present, and also to attend public worship in the afternoon and evening, at such place as their parents or guardians may direct.

No student is allowed to leave the city during term time without permission from his Division Officer.

Recitations are marked on a scale of 100, and the average standing of each student is made up at the end of each term, and sent to his parent or guardian. A mark at examination counts as much as one-third of the term.

If the grade of a student in any term falls below one-half the maximum in one of his studies, he is conditioned in that study, and must be re-examined therein before graduating.

If the general average of any student in any term falls below one-half the maximum grade, his case must be acted on as the Faculty shall deem necessary.

If any student's grade in any term falls below one-half of the maximum in all his studies, he loses his standing in his class, and is dismissed from College.

If any student is found to be notaby deficient in his daily recitations, or at the examination in any of his studies, his case is reported to the Faculty, and such action by way of discipline is taken as may be deemed necessary.

No student can enter an advanced class until all his deficiencies are made up, and if he fails to make up all his deficiencies before the opening of the College year, he is required to go back a year in his course. Examinations for making up said deficiencies are to be held on the day preceding the opening of College in September.

College Expenses.

FEES.

Tuition, per annum,	$75 00
Incidentals—Janitor, Fuel, &c., per annum,	8 00
Reading Room, per annum,	2 00
Admission Fee,	5 00
Graduation Fee,	7 50
Analytical Chemistry, extra, per term,	15 00

Damages are in all cases chargeable to the persons committing them.

Of the above expenses, the admission fees are payable on entrance to the College Treasurer; the incidental expenses are payable at the beginning of the first term, in September; of the tuition fees one-third, viz., $25, is payable within ten days after the beginning of each term.

Students in Analytical Chemistry are charged $15 additional per term, for chemicals and use of Laboratory, which amount must be paid within ten days after the beginning of the term. They are also expected to provide themselves, at their own expense, with the necessary sets of apparatus, which may be obtained from the regular apparatus dealers, or from the Laboratory Supplies department. These sets are retained through the year, but at the end of it if the owners do not wish to keep them, they will be purchased at a fair price. If proper care has been exercised, a small discount only (about 10 per cent.) from the original cost will be made. All breakage will be charged in full.

Board.

Board, with furnished rooms, can be obtained in New Brunswick at the present time for $4 to $7 per week; board without rooms for $3 to $5 per week. These prices do not include lights or fuel,—which cost from $3 to $5 per term. Students having the ministry in view may obtain rooms in Hertzog Hall, in the Theological Seminary, free of charge. The rooms are heated and lighted.

The Faculty are empowered to pass such regulations relative to the number of boarders in each house as they think proper; and students shall board only at such places as are approved by them.

By combining in clubs, students are able to reduce somewhat their expense for board.

Beneficiary Aid.

1. Van Benschoten Fund.

This fund, the gift of the Rev. Elias Van Benschoten, in 1814, amounting to $20,813, was given in trust jointly to the General Synod of the Reformed Church and the Trustees of Rutgers College, to aid in the education of indigent students for the ministry. The students who enjoy the benefits of this fund are appointed by the Trustees of the College on the nomination of the General Synod of the Reformed Church, and receive $150 annually.

2. Knox Fund.

This fund, consisting of $2,000, was given by Mrs. Rebecca Knox, of Philadelphia, in 1815, to the Trustees of Rutgers College, the income from it to be expended for the support of one student in the Theological Seminary.

3. W. P. Smock Fund.

William P. Smock, of Marlboro, N. J., left by his will, to the Trustees of Rutgers College, the sum of $500, to be invested as a fund, the interest of which should be used to aid in the education of young men for the ministry. This legacy was received in 1859, and has been since that time duly employed for the purpose indicated.

4. Mandeville Fund.

In 1865 the Trustees of Rutgers College received from the executor of the will of William Mandeville, of New York City, the sum of $2,000; said sum to be invested, and the income thereof to be applied to the support of a theological student in the College.

5. Voorhees Fund.

Abraham Voorhees, of Franklin Park, N. J., bequeathed by

his will, $26,000 to the Trustees of Rutgers College, the income of which is to be expended in aiding worthy young men who are candidates for the ministry, while pursuing their studies in Rutgers College. A grant of $200 per annum is made to the students thus receiving aid.

6. State Scholarships.

The law of the State of New Jersey granting to the Scientific Department of Rutgers College the Agricultural College Endowment, provides for the education of forty State students free of expense for tuition. These scholarships are distributed among the counties in proportion to their population, and the appointments to fill vacancies are made by the County Superintendents. The appointment gives the *right* to a course of instruction of four years in the Rutgers Scientific School.

7. Board of Education.

The Board of Education of the Reformed Church grants aid to young men preparing for the ministry in the denomination. The conditions are that the persons receiving aid shall have been members of some Evangelical Church one year, and at the time members of some Reformed Church. The aid may be obtained either while in College, or in the Theological Seminary.

At present the amount is $150 per annum. Information may be given by Rev. John L. See, D. D., 34 Vesey Street, New York.

8. Rooms for Students.

Such rooms in Peter Hertzog Hall as may not be required for the use of the students of the Theological Seminary, are allowed to be occupied by the students of the College and Grammar School who have the ministry in view, and on the same conditions as the members of the Theological Seminary, *i. e.*, free of charge.

Prizes and Honors.

All prizes and honors are open equally to members of the Classical and Scientific Departments, except in cases where prizes are specifically limited to one department by the donor. Each competitor for a prize must sign a written declaration that the essay or other work offered by him is his original and unaided work. They are as follows:

1. *Suydam Prize for Composition.*

This prize, the gift of James Suydam, Esq., is a gold medal of the value of thirty dollars, or that sum of money, and is to be given to the member of the Senior Class who shall write the best English Composition on the subject assigned to the class by the Professor of Rhetoric. Competitors must hand in their compositions on or before April 18th. The student to whom the prize is awarded must copy his composition upon paper furnished by the College, and present it for preservation in the Library before he can receive the prize.

Subject for 1882: "Attention: Its Nature, and Relation to Mental Training, to Progress in Literature, Science," etc.

Committee: REV. ALEX. MCKELVEY,
JOHN G. FLOYD, ESQ.,
GEORGE S. DURYEE, ESQ.

2. *Suydam Prize in Natural Science.*

This prize, the gift of James Suydam, Esq., is a gold medal of the value of thirty dollars, or that sum in money, and is to be awarded to the member of the Senior Class who shall have made the greatest attainments in Natural Science. The examination is upon all the subjects of Natural Science in the College course, and is conducted by the Professors in those subjects. The questions and answers are required to be written.

3. *Brodhead Classical Prize.*

This prize is the gift of Rev. Dr. Jacob Brodhead, and his son, J. Romeyn Brodhead, LL.D. It is the interest on $500, *i. e.*, thirty dollars to be given to the best Senior Classical scholar on the following conditions:

First, "That those who offer themselves as candidates for it shall be subjected to a special examination, at a time to be fixed by the Faculty near to the close of the Senior year."

Second, "That the subject of the examination be a passage or play of some Classical author (not included in the College programme of Studies), to be selected by the Classical Professors, and to be announced at least one month before the time fixed for the examination."

Third, "A subject for an essay shall be announced at the same time, and the essay shall be given in on the day of examination."

Fourth, "Both the examination and the essay shall be taken into account in the adjudication of the prize. A law copy of the essay of the Prize man shall be handed in by him before the medal is put into his hands, to be preserved among the archives of the College."

Subject for examination for 1882: *a.* The first forty Inscriptions from Boeckk's "Corpus Inscriptionum Græcarum," in Vol. I.

b. Muer's History of Greek Literature, Vol. I.

Subject for essay: to be written in Greek: When and from what source was writing introduced among the Greeks; and at what time did it come into common use?

4. Bradley Mathematical Prize.

This prize is given by Hon. Joseph P. Bradley, LL.D., and consists of a valuable Mathematical work, which is to be bestowed on the student of the Senior Class who shall present the best solution of a set of Mathematical problems to be proposed to the class by the Professor of Mathematics before the close of the second term.

5. Myron W. Smith Prizes.

These prizes were founded by Lyndon A. Smith, M. D., of Newark, in the name of his son, Adjudant Myron W. Smith, who was a graduate of the College, and who gave his life in the late war to the cause of his country. They consist of the interest of $500, proportionately appropriated to two medals, one of gold and the other of silver, which are to be awarded respectively to the best and second best speakers of the Sophomore Class. Only those students who shall have pursued, in the

College, the regular studies preparatory to the degree of the Bachelor of Arts from the beginning of the Freshman year, shall be allowed to contend for these prizes.

The competition for these medals shall take place before the Faculty, when the best and second best speakers shall be selected, to whom the medals shall be awarded, and six others shall receive honorable mention in their order of excellence. The medals shall be presented at Commencement.

6. Tunis Quick Prize in Spelling and English Grammar.

This prize, the gift of P. Vanderbilt Spader, Esq., of New Brunswick, is the income of $300, at 6 per centum, and is to be presented to that member of the Freshman Class, Classical or Scientific, who shall pass the best examination in Spelling and English Grammar.

The examination is to be conducted in writing by the Professor of English Literature, at as early a day as convenient in the second College term, and under such regulations as the Faculty may from time to time establish.

The prize may be withheld from any or all papers offered, either for want of merit or for failure of proper competition. In case the prize be not awarded in any year, it is to be offered one year later to the members of the same class, on the same conditions as at first.

All regulations as to time, manner and conditions of awarding the prize are subject to change by the Board of Trustees.

7. Peter Spader Prizes in Modern History.

These prizes, the gift of P. Vanderbilt Spader, Esq., are two in number, the income of $100 and $300, respectively, at 6 per centum, and are to be awarded to those members of the Sophomore Class, Classical or Scientific, who shall present the best essays on some subject in Modern History, selected by the Professor of History, with the approval of the Faculty.

The subject is to be announced at the close of the Freshman year, and the competing essays are to be handed in on, or before the third Monday in the third term of the Sophomore year.

The committee annually appointed by the Faculty may decline to award these prizes, or either of them, for want of merit in the essays, or for failure of proper competition. In case the prizes be not awarded in any year, they are to be offered one year later to the members of the same class, on the same conditions as at first.

Successful essays are to be copied on paper selected by the Faculty, and deposited in the College Library, before the writer receives his prize.

All regulations as to time, manner and conditions of awarding the prizes are subject to change by the Board of Trustees.

Subject for 1882: History of the English Bible Revision.

Committee: REV. J. DEWITT, D.D.,
REV. M. H. HUTTON, D.D.,
REV. J. E. PRICE.

8. *Appleton Memorial Prize in Moral Philosophy.*

This prize was founded by a gift of $500, from Rev. Samuel E. Appleton in the name of his mother, Mrs. Elizabeth Appleton. It consists of $30—the interest of the above sum, and will be given to the member of the Senior Class who shall pass the best examination in Moral Philosophy.

Subject of Essay: "Moral Obligation; its nature, origin, extent and limitations."

Committee for 1882: REV. W. V. V. MABON, D.D.,
REV. T. C. EASTON, D.D.,
JOHN VOORHEES, ESQ.

9. *Wm. Wilson Prize in Mental Philosophy.*

This prize consists of $25, given by Rev. F. F. Wilson, and Rev. P. Q. Wilson, in honor of their father, Captain William Wilson, of the New Jersey State Militia. It will be open to competition for students in both the Classical and Scientific Sections who are pursuing the study of Mental Philosophy, and will be bestowed on the one who shall pass the best examination on some work assigned by the Professor of Metaphysics.

Work for 1882: "Berkeley's Principles of Knowledge, Dr. Krauth's Edition, pp. 72–122, and 193–281."

10. Wm. H. Van Doren Prize for the best Essay on Christian Missions.

This prize consists of $20, the gift of Rev. William H. Van Doren, D.D. It is open to competition for members of the Senior and Junior classes in both Sections; and for members of the Theological Seminary.

Committee for 1882: REV. M. H. HANSEN,
REV. J. CRUIKSHANK,
EDGAR BERGEN, ESQ.

11. Junior Exhibition.

Eight members of the Junior Class are chosen each year, in equal numbers from the Peithessophian and Philoclean Literary Societies, who deliver original speeches at an exhibition held on the Tuesday evening preceding Commencement. The selection is made by a committee of three persons, of whom one is chosen by each Society, and a third by the Faculty, and is based upon relative excellence as writers and speakers.

12. Junior Orator Prize.

A prize of $25, the gift of Major M. H. Bright, will be awarded to the Junior orator whose elocution and composition shall be adjudged best by a committee appointed by the Faculty.

Committee for 1882: REV. JOHN K. ALLEN,
ROBERT C. PRUYN, ESQ.,
REV. CYRUS B. DURAND.

13. Knickerbocker Prize for Original Research.

A gentleman signing himself "Knickerbocker" offers a prize of $30, (open to all the students of the College and Seminary,) for "ORIGINAL RESEARCH."

This will include the discussion of Historical Topics, the knowledge being drawn from original sources; the discussion of questions in Mental Philosophy, founded on observation of one's own mind; original Mathematical Investigations: discoveries in Analytical and Organic Chemistry, etc.

The award will be made by a committee composed of the Faculty and two Trustees.

14. Hart Prize in English Literature.

A prize of $25 is open to the members of the Sophomore Class, for the best essay upon a subject in literature, assigned by the Professor of that department, and awarded by a committee appointed by him.

Subject for 1882: Tennyson.

Committee: REV. J. ROMEYN BERRY, D.D.,
MRS. SCHUYLER VAN RENSSELAER,
J. C. VAN DYKE, ESQ.

Library and Museum.

1. Library.

The Library of the College is open for consultation every day at stated hours during each term. The collection of books, although entirely inadequate to the wants of the Institution, is yet of great value. It has received considerable additions during the past few years, and no effort will be spared to make it what the Institution requires. Donations to this object, either in money or books, are earnestly solicited.

By the gift of a permanent fund of $1,000 from James Suydam, Esq., the Library is supplied with the leading learned periodical publications in the various departments.

2. Museum and Apparatus.

The Trustees solicit contributions from the friends of the College to the collections of the Museum. It is their wish to increase greatly the present valuable collections by additions in all departments. Donations of specimens illustrating Geology, Mineralogy, Natural History, Coins, Curiosities, and Antiquities, and the Industrial Arts, are earnestly requested. Ample rooms are provided in the new Geological Hall for the proper preservation and display of such specimens. By the kindness of numerous friends, suitable cases have been provided to receive the collections which the College already possesses, and they are now being arranged as rapidly as circumstances will allow. The Museum is open at stated times during each term.

The apparatus of the College for illustrating the various branches of Science, is extensive and serviceable. It has been obtained as the wants of the classes demanded, and comprises most of the recent additions to Chemical and Philosophical apparatus. The students in Analytical Chemistry are provided with the requisite facilities for making analyses. The arrangements for these departments in the building recently erected are of the most ample and convenient description.

Register.

1. *Junior Exhibition.*

ORATORS FOR 1881.

Philoclean Society.	*Peithessophian Society.*
CHAS. Z. EDGAR,.....Griggstown.	WM. I. CHAMBERLAIN, ..Milbrook, N.Y.
HOWARD M. LANSING,....Brooklyn, N.Y.	ABRAHAM B. HAVENS,.....Jersey City.
JNO. MORRISON, Fishkill-on-Hudson, N.Y.	N. DEWITT PUMYEA,....Three-Mile-Run.
J. POWERS PHILIP,..... Catskill, N. Y.	MYRON T. SCUDDER,...Upper Red Hook.

2. *Graduating Exercises, June 22, 1881.*

HONORS.

H. D. MULFORD, Hudson, N. Y.,.....*Latin Salutatory*..... First Honor.
L. L. TAYLOR, Newark,.....*English Salutatory*,.....Second Honor.
C. B. SCHOONMAKER, Stone Ridge, N. Y..*Philosophical Oration*,.....Third Honor.
J. W. BROOKS, Cheshire, Conn.,.....*Scientific Oration*,.....Fourth Honor.
H. D. MULFORD, Hudson, N.Y.,.....*Valedictory Oration*,....Rhetorical Honor.

ORATIONS.

T. B. BOORAEM,.. New Brunswick.	C. I. HARING,.....Montmoor, N. Y.
J. BRUER,.....New Egypt.	JOEL LOUCKS, ...Palatine Bridge, N. Y.
S. H. CANE,.... Harlingen.	WM. SCHMITZ,..... Brooklyn, N. Y.
M. T. CONKLIN,..... ...Kingston, N. Y.	I. S. UPSON,.....Marion, Conn
J. E. CRANE,... Fair Oaks, N.Y.	E. B. VOORHEES, JR.,. South Branch.
J. S. WIGHT,.....Jersey City.	

3. Prizes Awarded.

GENERAL PRIZES.

Knickerbocker Prize for Original Research, - - - - - W. D. SCHOONMAKER.
J. A. VAN MATER.
Van Doren Prize for Missions, - - - - - - - ABEL H. HUIZINGA.

SENIOR PRIZES.

Brodhead Prize for Classics, ... CHESTER B. SCHOONMAKER.
Suydam Prize for Natural Science, ... CHARLES B. SCOTT.
Suydam Prize for Composition, ... LIVINGSTON L. TAYLOR.
Bradley Prize for Mathematics, ... T. HENRY GRANT.
Appleton Prize for Moral Philosophy, ... L. L. TAYLOR.
Bowser Prize for Best Thesis, ... FREDERICK W. MALCOLM.

JUNIOR PRIZES.

Wilson Prize for Mental Philosophy, ... WILL S. CRANMER.
Bright Junior Orator Prize, ... A. B. HAVENS.

SOPHOMORE PRIZES.

Spader Prize for Modern History, (1st), ... GEO. Z. COLLIER.
Spader Prize for Modern History, (2d), ... W. H. S. DEMAREST.
English Literature Prize, ... GEO. Z. COLLIER.

FRESHMAN PRIZE.

Quick Prize for Grammar and Spelling, ... GEORGE DAVIS.

4. Class Day Exercises.

IN THE CHAPEL.

ORATION, ... N. IRONSIDES, ... Covington, Ky.
POEM, ... H. D. MULFORD, ... Hudson, N. Y.
CLASS HISTORY, ... T. B. BOORAEM, ... New Brunswick.
J. W. MALCOLM, ... New York City.
CLASS PROPHECY, ... I. S. UPSON, ... Marion, Conn.
J. F. McWILLIAMS, ... East Millstone.
PRESENTATION OF CLASS MEMENTOES, ... S. B. FIELDER, ... New Brunswick.
J. S. WIGHT, ... Jersey City.
PARTING ODE, ... I. S. UPSON, ... Marion, Conn.

ON THE CAMPUS.

ORATION, ... GEO. H. STEPHENS, ... North Branch.
PLANTING OF THE IVY, ... F. W. DENISE, ... Freehold.

5. *Alumni Association.*

OFFICERS FOR THE YEAR 1881-82.

Rev. W. H. STEELE, D.D.,	President.
Rev. S. W. MILLS, D.D.,	Vice Presidents.
Rev. T. B. ROMEYN, D.D.,	
JOHN P. GARRISH, M.D.,	
JOHN V. SCHENCK, M.D.,	
Prof. I. E. HASBROUCK,	Treasurer.
Rev. JOHN L. SEE, D.D.,	Secretary.
Rev. T. S. DOOLITTLE, D.D.,	Biographer.
RUSH VAN DYKE, M.D.,	Chairman of Standing Committee.

ORATOR FOR 1882:

Rev. T. W. CHAMBERS, D.D., ...Primarius.
Rev. J. ROMEYN BERRY, D.D., ...Secundus.

VEDDER LECTURER FOR 1882:

Rev. JOHN B. DRURY, D.D., ...Ghent, N. Y.

Former students of the College, whether graduates or not, are earnestly requested to keep the College informed of any change in their address or occupation, of works published, offices held, &c., both to enable the sending of the annual catalogue, and to furnish material for general catalogues, when printed.

It is now proposed to issue the new edition of the general catalogue as soon as sufficient and reliable data can be obtained.

It is desired to secure for the Library of the College a complete set of all the publications of whatever kind, whether periodical or occasional, or issued by any one in connection with the College, or relating to it. A complete collection of *Rutgersensia* would be of great value to the College and its friends.

Grammar School.

Prof. DeWITT T. REILEY, A. M., Rector.

This School prepares boys for the Classical and Scientific de-

partments of the College, for business, or affords a High School course.

In 1870, the Trustees of the College and School erected on the corner opposite the College Campus, a building fitted with all the conveniences required for a school of high grade. The school has been placed under the management of REV. DEWITT T. REILEY, Latin Professor in Rutgers College. It is his desire, as it is that of the Trustees, that the Institution should maintain its rank as a classical school for the preparation of boys and young men for entrance to *any* college, while adding thereto that initiation into practical and scientific studies which is required in entering the various Technical and Scientific Schools, or in meeting the demands of modern business life. Those interested in knowing how that rank has been maintained, are invited to notice carefully the course of study, based absolutely on the actual work of the past year.

Boys may enter the Primary Department at the age of from six to twelve years. Thence they pass, when fully prepared to do so, into the Fourth class. When graduated from this class, those who desire preparation for college pass through the Third, Second, Lower First, and Upper First classes. Those who complete the full course will be prepared to enter the Freshman class of any college and even, with summer study, the Sophomore class of most colleges. Those who intend to enter a Scientific school, or business, take the B, A, and H Scientific classes.

FACULTY.

LATIN,

REV. DEWITT TEN BROECK REILEY, A.M., RECTOR.

MATHEMATICS AND BOOK-KEEPING,

WILLIAM E. BISSELL, A.B., (State Normal School.)

NATURAL SCIENCES AND GRAPHICS,

EDWARD A. REILEY, M.D., (Rut. Coll.)

LATIN AND GREEK,

THEODORE P. FARR, A.B., (Tuft's Coll.)

ENGLISH BRANCHES,

W. STOCKTON CRANMER, (Rut. Coll.)

REV. JOHN A. DEWALD.

FRENCH,
CHARLES DuCROQUET, (Academie de Paris.)

PRIMARY DEPARTMENT,
MISS R. E. STELLE, (State Normal School.)

PENMANSHIP,
UNDER DIRECTION OF W. E. BISSELL.

ELOCUTION,
W. E. BISSELL.

EXAMINERS.

GREEK,
WM. H. CAMPBELL, D.D., LL.D., President of Rutgers College.

LATIN,
PROF. GUSTAVUS FISCHER, LL.D., Author of the Latin Series.

MODERN LANGUAGES,
CARL MEYER, D.D., Prof. of Modern Languages in Rut. Coll.

HISTORY,
GEORGE W. ATHERTON, A M.. Prof. of History in Rut. Coll.

MATHEMATICS
ISAAC E. HASBROUCK, A.M., Prof. Mathematics Rut. Coll.

ENGLISH GRAMMAR AND GEOGRAPHY.
REV. DEWITT T. REILEY, RECTOR.

COURSE OF STUDY.

PRIMARY DEPARTMENT.

Arithmetic—to Fractions; Geography—Guyot's Intermediate begun; English Grammar; Swinton's Language Lessons; Reading—Hillard's Second and Third Readers; Spelling—Patterson's Speller; Botany—Object Lessons; Natural Science—in Lectures for children, by Dr. Lockwood,
Writing, Composition, Declamation, Drawing, Gymnastics, and Object Lessons.

GRAMMAR SCHOOL DEPARTMENT.

FIRST YEAR. FOURTH CLASS.

Arithmetic—To Compound Numbers; Review; Mental Arithmetic—Brooks'; Geography—Guyot's Intermediate finished; English Grammar—Swinton's Elementary; United States History—Barnes'; Latin—Fischer's Grammar and Reader

begun; Latin Composition—Fischer's begun; Reading—Hillard's Fourth Reader; Spelling—Warren's Speller; Natural Science—Lectures; German—Fischer's Ahn; French—Keetel's First Book.

Writing, Composition, Letter Writing, Declamation and Military Drill.

SECOND YEAR. THIRD CLASS.

Arithmetic—Through Interest; Mental Arithmetic—Brooks' Normal; Latin—Grammar and Reader to Syntax; Latin Composition—Fischer's to Book II; Geography—Guyot's Grammar School; English Grammar—Swinton's Progressive to Syntax; United States History—Barnes'; German—Fischer's Ahn begun; French—Keetel's Elements of Grammar; Reading—Hillard's Fifth Reader; Spelling—Warren's Speller; Industrial Drawing—Krusi's; Natural Science—Lectures.

Writing. Composition, Letter Writing, Declamation and Military Drill.

B SCIENTIFIC CLASS.

This class recites with the Third in all subjects except Latin, substituting for it Book-Keeping—Bryant and Stratton's.

THIRD YEAR. SECOND CLASS.

Algebra—Through Fractions; Arithmetic—Brooks' new Normal; English Grammar—Swinton's Progressive; English History—Goodrich's; Reading—Hillard's Sixth Reader; Spelling—Henderson's Speller; German—Fischer's Ahn finished; French—Keetel's Analytical Grammar; Latin—Grammar and Reader finished; Latin Composition—Fischer's to Lesson XXXI; Cæsar's Gallic War—three books; Greek—White's Lessons to Conditional Clauses; Greek—Anabasis, one and a half books; Natural Science—Lectures.

Writing, Declamation, Composition, Letter Writing and Military Drill.

A SCIENTIFIC CLASS.

This class recites with the Second in all subjects except Latin and Greek, substituting for them—

Book-Keeping—Bryant and Stratton's Larger; Industrial Drawing—Krusi's; Draughting—Physiology—Hutchinson's; Commercial Law—Lectures; United States Constitution—Alden; Natural Philosophy—Steel's.

FOURTH YEAR. LOWER FIRST CLASS.

Latin—Cæsar, Books IV, V, VI and VII; Latin—Cicero, Catilinarian Orations; Latin Composition—Fischer's to Book III; Greek—Anabasis, through Book V; Greek Composition—in White's Lessons; Algebra—through Quadratics; German—Reader; French—Keetel's Analytical Grammar; General History—Swinton's; Lectures in Geology and Zoology; English Grammar and U. S. History—Reviewed; Composition, Declamation and Military Drill.

H SCIENTIFIC CLASS.

Algebra—to Series; Geometry—five books; Botany—Gray's with Lectues; Chemistry—Steele's, with Lectures; Blowpipe Analysis—(Optional); Physical Geography—Guyot's; Rhetoric—Hart's; General History—Swinton's; Lectures

in Geology and Zoology; German—Reader; French—Keetel's Analytical Grammar; Elementary Studies Reviewed; Draughting; Composition, Declamation and Military Drill.

FIFTH YEAR. UPPER FIRST CLASS.

Latin—Cicero, three Orations; Latin—Æneid, six books; Latin Composition—Fischer's finished; Roman History and Antiquities; Algebra—Reviewed; Geometry—five books; German—Reader; French—Keetel's Analytical Grammar; Greek—Iliad, six books; Greek Composition—White's and Oral; Greek History and Antiquities; Classical Geography; Elementary Studies Reviewed; Composition, Declamation and Military Drill.

☞ NOTES ON COURSE OF STUDY.

French is under the charge of M. Ducroquet, a graduate of the Academie de Paris, and is taught in every grade in the School without extra charge.

The unit of recitation is one of twenty minutes. In many recitations this is doubled, and in a few tripled.

When a book is simply named it is meant that the book is to be *finished* at the end of the year under which it is named.

The H class is joined with the Lower First class in Algebra, General History, German and Science Lectures, and with the Upper First class in Geometry, Composition, Declamation and Military Drill.

Compositions are *required* from all classes every two weeks, class declamations weekly and general declamations and debates every three weeks. Parents are requested earnestly *not* to give excuses from these exercises.

When any study is given in Lectures notes are *required.* They must be copied, inspected and graded.

In Classical History, Antiquities and Geography, Appleton's Primers of Literature and History will be used.

EXAMINATIONS AND REPORTS.

Examinations are held every ten weeks by the Examiners, most of whom are selected from the College Faculty. They will be enforced rigidly and thoroughly, with the design of showing to the student his deficiencies, and marking to the teacher the exact standing of his class. In grading, the Examination mark will count as one-fourth or the Term mark.

A report of the standing of each student is sent to his parent or guardian every ten weeks. Any failure to receive a Report

should be promptly mentioned to the Rector, *who will not feel responsible where parents refuse or neglect to co-operate with him.*

A mark of 100 is perfect, 0 is entire failure, and degrees of scholarship are indicated by marks between these limits. A grade below 60 is poor.

PRIZES.

Prizes are only given for excellence in speaking at the Commencement Exercises in June, and for proficiency in the department of Natural Science. These latter take the form of mineral cabinets.

LITERARY SOCIETIES.

Two Literary Societies meet weekly, managed by the students, with the co-operation of the teachers. In their meetings debates are a prominent feature, and their members are encouraged and urged to take the lead in the debates before the school. The weekly meetings are expected to adjourn before 9:30 P. M.

ATTENDANCE.

The hours of attendance are from 8:30 A. M. to 1:30 P. M. For absence, tardiness, or imperfect recitations, written excuses from parent or guardian are required. A second day's absence will bring a notification to the absentee's parent.

Trains on the Pennsylvania Railroad, which pass through New Brunswick, arrive at all hours of the day. Many pupils from the cities and villages along this line of railroad, live at home and come daily to New Brunswick. For this purpose School tickets may be obtained at a reduced rate. For students living at a greater distance, a Boarding department is available. The Rector wishes it distinctly understood that, in a large city like New Brunswick, he cannot be responsible for the good conduct or well-being of boys who are allowed to board in town beyond his control.

TERMS OF TUITION.

PREPARATORY DEPARTMENT, - -	$ 9	PER QUARTER.	
4TH AND B SCIENTIFIC CLASSES, -	13	"	"
A SCIENTIFIC CLASS, - - - - -	14	"	"
H " " - - - - -	15	"	"
3D CLASS, - - - - - - -	16	"	"
LOWER, UPPER, 1ST AND 2D CLASSES,	18	"	"

Bills for tuition will be sent quarterly, and are expected to be paid in advance. Pupils will be charged from the time of entrance, except that deduction for absences during the first three weeks of the school year will not be allowed. Students are received at any time, and assigned to the class which they are qualified to enter. They should, however, be present on the first day of the term. Those who come a few days late are much embarrassed, and an embarrassment to others. No deduction is made for absence, unless occasioned by sickness for five weeks or more, when the loss will be shared equally between the parents and the school.

Special instructors will be engaged, if desired, for Music, Painting, &c., and their bills will be enclosed with the term bills. In exceptional cases backward boys *may*, with the consent of their parents, and the knowledge of the Rector, take private instruction in out-of-school hours from some of the teachers.

BOARDING DEPARTMENT.

The Boarding Department is some distance from the school building, giving the boys during school hours the spirit and stimulus of a large graded school, and at home the privacy of a small boarding school.

The number of boarders is limited to twenty.

Regular hours of study are required, under direction of teachers. Connected with the house are eight acres of ground, with shade trees and facilities for base ball and athletic sports. Daily out-door exercise is required, or, in case of stormy weather, exercise in the Gymnasium.

The food is abundant, substantial and nourishing, the Rector and his own family having the same table with the boys. Parents who desire their boys to be healthy and in good condition for study, should not send them boxes of cake and pastry.

On Sunday the pupils are required in the morning to attend preaching in the College Chapel, unless the parents otherwise direct. In the afternoons a Bible class is held at the house. The Rector endeavors not to make Sunday either a day abhorrent to his pupils, or a day desecrated by them.

Pupils are not allowed to leave the grounds without special permission.

TERMS OF BOARDING DEPARTMENT.

Board, Tuition, Fuel and Light, $75 per *Quarter*. No extras,

except for washing, medical attendance, and studies not in the regular course. Each pupil must bring towels, bag for soiled clothes, napkin ring, plated fork and spoon, umbrella, slippers and overshoes. All articles must be marked with the full name of the owner.

Pupils in the Boarding Department are expected to remain until the close of the year, unless other arrangements are made at the time of entering. Payments to be made on the same conditions as day scholars.

Damage to property will be repaired at the expense of the person committing it.

Necrology.

The following notices have been furnished under the direction of Prof. T. S. Doolittle, D. D., the Biographer elected by the Alumni. He acknowledges efficient aid from Prof. I. E. Hasbrouck, and I. S. Upson, of the Class of '81.

The death roll is exceptionally large this year. A former Trustee and twenty-two of the Alumni, including another Trustee, have died since the publication of the catalogue of 1880–'81, as follows:

		Rev. Benjamin C. Taylor, D.D. Not a graduate, but a Trustee.
Class of	1827.	Rev. Hugh Hamill, D.D.
"	1829.	James C. Forrester, M.D.
"	1831.	Adrian Lott, Esq.
"	1837.	William R. Janeway.
"	1843.	John C. T. Smidt, Esq.
"	1844.	Jacob V. B. Martense.
"	1844.	Rev. Chas. H. Stitt, D.D.
"	1845.	Rev. John Wetherill Schenck.
"	1845.	Benjamin D. Frost, C.E.
"	1848.	Rev. Adam H. Van Vranken.
"	1851.	Cornelius Esselstyn, Esq.
"	1856.	Nathaniel C. Kinney.
"	1856.	Moses P. Clark.
"	1859.	Rev. Isaac H. Collier
"	1859.	Rev. William B. Van Benschoten.
"	1863.	James L. H. Elmendorf, M.D.
"	1865.	Frederic T. Van Wagner, M.D.
"	1865.	Rusha Denise.
"	1874.	Rev. Chas. H. T. Kreuger.
"	1874.	John W. Wyckoff, Esq.
"	1875.	Harrington Mapes Dodge.
"	1878.	William Burham Marshall.

The sketches given below have been prepared from newspaper notices, and from information obtained by correspondence with relatives and friends of the deceased.

REV. BENJAMIN C. TAYLOR, D.D.

Although Dr. Taylor had, on account of the infirmities of age, resigned his office as Trustee in 1878, yet his character in the church was so eminent, and his friendship for the College had been so marked and helpful, that he deserves an honored place in these pages. His death, caused by a combination of paralysis and pneumonia, took place at his home on Jersey City Heights on Feb. 2, 1881.

Dr. Taylor was born in Philadelphia, Feb. 24, 1801. When only eighteen years of age he was graduated at Princeton College. He studied theology at New Brunswick, N. J., in the Seminary of the Reformed Church, under Dr. Livingstone. He was licensed by the Classis of New Brunswick in 1822, and was immediately ordained as pastor of the churches of Greenbush and Blooming Grove in Rensselaer Co., N. Y. In 1825 he removed to Aguackanock, now Passaic, New Jersey. In 1828, upon the death of the Rev. John Comelison, he was called to the pastorate of the Bergen Church, and on the first Sunday in July entered upon his duties. At that time his congregation extended from English Neighborhood on the north, to Bergen Point on the south; and in all Hudson County there were only four churches, including his own. He received the degree of LL.D. from Hobart College in 1843, and was a Trustee in Rutgers College from 1857 to 1878. He was the pastor of the Bergen Church, until in 1870, when his increasing infirmities made his retirement necessary. He was then made pastor emeritus by the Classis of Bergen, but the pastoral relation between himself and the Bergen Church was never dissolved. He spent the last ten years of his life in retirement, only engaging in such services as he was able to perform.

Dr. Taylor was a son-in-law of the late Rev. Dr. J. V. C. Romeyn, of Hackensack, N. J. His wife had been dead nearly thirteen years. He was a brother of Dr. Isaac C. Taylor, of New York City, and the father of the Rev. Dr. W. J. R. Taylor, of Newark, N. J., who very appropriately takes his place in the Board of Trustees. Dr Taylor was a man of fine abilities, of exceptional devotion to his Master's work and remarkable for his unselfish success in organizing new churches from his own teeming congregation. His prayers, as devout as they were eloquent, made a profound impression on an audience. Several of his occasional sermons were published, and he was the author of a valuable contribution to local history entitled, "The Annals of the Classis and Township of Bergen," which was published in 1856.

REV. HUGH HAMILL, D.D.

Rev. Hugh Hamill, D.D., was the son of the late Robert Hamill, an elder of the First Presbyterian Church of Norristown, Pa. He was prepared for college in the academy of his native place, under the instruction of Rev. Joseph Barr and Rev. James C. How. When through his preparatory course he was sent to Rutgers College by the advice of Mr. How, whose brother was then a pastor in New Brunswick, N. J. At eighteen years of age he was graduated in the class with Rev. Ransford Wells, D.D., Robert Adrain, Esq., and others.

A month after his graduation he entered the Theological Seminary at Princeton.

After his licensure to preach the Gospel by the Presbytery of Philadelphia in 1830, he taught for some time in the school of Dr. Robert Steel, of Abington, Pa. He then spent a year in New Haven, Ct., in attending the lectures of Prof. B. Silman, Rev. Dr. Taylor, and others.

Receiving an appointment from the Board of Domestic Missions, he located in Black Rock, Western New York, where he commenced his ministry. He was or-

dained by the Presbytery of Buffalo in 1832, and entering on his work with earnestness his labors were greatly blessed. After having labored in Black Rock for two years, he visited his friends in Eastern Pennsylvania and Delaware, and accepted a call to the Church of Elkton, Md. He labored there for several years until after the division in the Presbyterian Church, when he accepted an invitation to teach the ancient languages in the High School at Lawrenceville, N. J. In this useful field of labor he continued as associate Principal with his brother Samuel, for a period of more than thirty years.

Dr. Hamill was an accurate and thorough scholar and a most able and faithful instructor. He was fond of young persons and easily won their confidence. His hearing becoming impaired, he reluctantly gave up a work in which he took great pleasure. In 1873 he was married to Louisa, the daughter of Rev A. K. Russell, of Newark, Delaware, and took up his residence there.

With a cultivated wife who made his home attractive and in the midst of the intelligent circle with which Newark is favored, he spent the last nine years of a life that reached beyond the limit of three-score years and ten.

He was modest but decided. He made warm friends wherever he went. In his early ministry in Western New York, in his pastorate at Elkton, in his career as an Instructor at Lawrenceville, in his residence at Newark, in his intercourse with his brethren, he commanded the respect and confidence of all who knew him. He thought much, read much, journeyed much, remembered much and became in himself a storehouse on which it was a privilege to draw. His end was peace. His Alma Mater conferred on him the Degree of Doctor of Divinity in the year 1867, an honor most fitly bestowed.

ADRIAN LOTT, ESQ.

He was born at Flatlands, Kings county, N. Y., on Nov. 13, 1809. He was the son of John J. Lott and Elizabeth Van Sinderen Lott. John J. Lott was descended from Englebert Lott, who came from Holland and settled at Flatbush, on Long Island, in the year 1682, and whose descendants have been among the most distinguished and useful citizens of the Empire State.

Adrian Lott was graduated from Rutgers College in the year 1831. After finishing his collegiate course he devoted some time to the study of the law. After a residence of 17 years at Greene, N. Y., he removed to Somerville, N. J., in 1850.

In 1851 he moved to Belvidere. He was a member of the old Whig party, and in 1856 was active in the Republican organization. For some years he was a member of the Warren County Republican Executive Committee.

For thirty years he filled a large and important place in the affairs of his vicinity, and held a high place in the esteem and affections of the people. As an honest business man, as a pure and trustworthy citizen, and as a Christian gentleman, he maintained a character worthy of emulation.

WILLIAM R. JANEWAY

Was born October 17, 1817, in Philadelphia, in which city most of his boyhood was passed. At sixteen he entered Rutgers College and was graduated in the class of 1837. While in the Senior year at College he resolved on entering the ministry and accordingly spent some time after graduation from College in the Theological Seminary. But a weakness of the throat obliged him to give up all thought of preaching and he left the Seminary before completing the first year. Several years were then spent on a farm near New Brunswick, until this was abandoned for business life.

In 1848 Mr. Janeway became a member of the firm of Janeway & Co., manufacturers of paper hangings, and assumed control of the business of the firm in New York. Engaged in this work he resided for sixteen years in Jersey City and served

throughout that time as ruling elder in the First Presbyterian church. Owing to impaired health he removed in 1867 to the country seat on the Raritan above New Brunswick, where his last years were spent. While living here he served several terms as elder of the Second Reformed Church of New Brunswick, of which church he was one of the most active members and in whose welfare, both temporal and spiritual, he was deeply and enegetically interested.

His regular attendance at the Commencement exercises of his Alma Mater testified to his interest in her welfare. For many years he was appointed and reappointed as one of the Board of Visitors, on the part of the State, to the State College for the benefit of agriculture and the mechanic arts, conscientiously fulfilling the duties of his position. He died suddenly on the 9th of April, 1881, from an affection of the heart.

JOHN C. SMIDT

Was born at Nyack, N. Y., June 8, 1822, and died on the 27th of April, 1881. His early years were spent at Nyack, and here he was prepared for college by Rev. Philip M. Brett, then pastor of the Dutch Reformed Church. He was graduated from Rutgers College with honor in the class of 1843.

Leaving college he went to New York city and studied law in the office of the late Judge John Slosson, then the partner of Hon. Augustus Shell. In 1846 or 1847 he was admitted to the Bar and commenced practice. His first partner was Addison M. Burt. He subsequently married a Miss Lee of New York city, and formed with her brother, the late Wm. P. Lee, the firm of Lee & Smidt, to which ex Judge John M. Barbour was afterwards admitted. This firm was for many years one of the best known and most prominent among the lawyers in New York city. The court work, for which he was singularly well fitted, fell almost entirely to Mr. Smidt, and he was brought forward with much prominence as one of the best lawyers then in practice.

In 1871, after an honorable practice of 25 years, he closed his office in New York city and from that time rarely left Nyack.

JACOB V. B. MARTENSE.

The death of this excellent citizen on Dec. 16, 1881, at Flatbush, L. I., is felt to be a great loss in the Reformed Church, where he has been specially interested in the Sunday-school work. Mr. Martense was descended from one of the original Dutch settlers of Kings County—Martin de Boer, or Martin the Farmer—who came to this country from Holland over 200 hundred years ago. He was born in Flatbush, L.I., in 1828, and always lived at the Martense homestead, and was graduated from the College in the class of 1844. He had been supervisor of the town, and was prominent and public-spirited in local affairs. Though always active in politics, he maintained an unspotted integrity. His warm friendship for the College was evinced by liberal gifts to its endowment funds.

REV. CHARLES H. STITT, D.D.

Dr. Stitt was a native of Sullivan county, N. Y. After his graduation from Rutgers College in 1844, and from the Theological Seminary in 1848, he assumed charge of the church at New Paltz, where he remained until 1865. He then accepted a call to the Second Church of Kingston, N. Y., and was its beloved pastor for a period of nine years. In 1866 he received the doctorate of Divinity from his Alma Mater, and was elected President of the General Synod at its session in Philadelphia, June, 1869. From Kingston, he was transferred to the church of Bayonne, " which

he piloted through its most perilous and trying days," from which he was at the age of sixty-two suddenly snatched away by death, on April 19, 1881. His labors here were ardent and successful. A grateful and affectionate people gave unusual demonstrations of grief at his funeral. Dr. Stitt, naturally blessed with a happy and kindly temperament, became a faithful and appreciative pastor. He was an accepable and sometimes a powerful preacher—always tender and impressive in his presentation of the very marrow of the Gospel. He was the author of several occasional publications, chiefly sermons and historical addresses.

REV. JOHN WETHERILL SCHENCK.

Mr. Schenck died in Brooklyn Dec. 28, 1881, at the age of 56. He was a graduate of Rutgers College in the class of 1845, and of the New Brunswick Seminary in 1849. His first pastorate was at Tarrytown. He was then settled at Chatham and Bedford (now East Brooklyn). He was pastor of the Reformed Church in Ithaca from 1853-63, of Second Reformed Church in New Brunswick 1863-6, and of the Third Reformed Church in Philadelphia 1866-8. The four succeeding years were spent in the Presbyterian Church of Pottsville, Pa. From 1872 till his death he had been pastor of the ancient Church of Claverack.

Mr. Schenck was a man of much ability. His sermons were characterized by thorough preparation, exalted thought and burning zeal. He possessed noble and generous traits of character, and had a strong hold upon many hearts His was a particularly nervous temperament, by reason of which, life was not always the restful or satisfying experience it might have been. But he rests now from not only the "fitful fever," but the faithful toil of an earnest and devoted life, and his works do follow him,- as do the hearts of a multitude in many places who loved him, more perhaps than he thought.

BENJAMIN D. FROST

Was born at Wayland, Mass., Aug. 10, 1830, and died at St. Louis, Mo., July 19, 1880. He was graduated in the class of 1845 with high rank. The following year he passed in a further course of liberal study as a resident graduate at Harvard University, Cambridge, Mass. At the conclusion of the year so spent, he commenced under Samuel M. Felton, a celebrated Civil Engineer, a course of study and practice in preparation for the profession of his choice. In 1850, while engaged in the office of the Chief Engineer of the Baltimore and Ohio Railroad, not then completed, his ability and fidelity so commended him to his Chief, that he was placed in charge of a difficult section of construction, known as the "Pettibone Tunnel." Then followed a busy life of professional work on the Alexandria, London and Hampshire Railroad, in Virginia; the Sunbury and Erie in Pennsylvania; in Maryland, Wisconsin and North Carolina. He was later employed on the Kansas City Bridge over the Mississippi River; in Central Park, N. Y. City; in surveys and studies for Prospect Park, Brooklyn, N. Y.; on the work preparatory to the construction of the acqueduct at Washington, D. C.; on harbor work at Boston, Mass., and in numerous minor undertakings of similar character. With the experience and skill thus acquired, he was selected as State Engineer of the Hoosac Tunnel, a work of national interest and importance. He continued in charge of this enterprise for eight years, until its completion in 1876. In 1879 he accepted his final commission from the United States Government, conducting the surveys of the Mississippi River. While engaged in this work he was attacked by the malarial disease prevalent in that locality, and in the midst of hope and high endeavor, was suddenly lifted out of labor into rest.

His reputation among those of his profession was deservedly high; his name will remain forever identified with some of the greatest engineering problems of

his country, while his memory will ever be honored by his superiors, to whom he was faithful, and by his subordinates, to whom he was always helpful and considerate.

REV. ADAM H. VAN VRANKEN.

Rev. Adam H. Van Vranken was born at Princetown, N. Y., April 26, 1824, was converted at the age of 17 years, graduated at Rutgers College in 1848, completed his Seminary course, was licensed by the Classis of Schnectady, and settled at Glen, N. Y., in 1851, and removed to Centerville in 1865, where he died on Sunday evening, Oct. 24, 1880. He was a very successful pastor, his chief qualification being a consecrated energy and sanctified common sense united with careful preparation for the pulpit. He leaves a widow and a son, Rev. H. H. Van Vranken, of Irving Park, Ill., and one daughter, Mrs. Sarah Fonda, of Centerville.

The Consistory of the Church of Centerville adopted appropriate and feeling resolutions, embodying a fine tribute of respect to their beloved pastor.

CORNELIUS ESSELSTYN, ESQ.

Cornelius Esselstyn, Esq., an energetic Trustee and a loyal friend of the College, died suddenly at his home in Hudson, N. Y., on July 3, 1881. He was born in the house of his maternal grandfather, Rev. Herman Vedder, in Gallatin, on the 21st of March, 1833; was prepared for college at the Claverack Academy, and at the age of sixteen entered Rutgers College, where he graduated with the highest honors in 1851. Immediately after his graduation he entered the Albany Law School, where again he carried off the highest honors of his class. In 1855 he became the partner of John Gaul, Jr., Esq., a relation which continued for twenty-four years, until the death of Mr. Gaul, when his place was taken by his son. Mr Esselstyn won the name of the best practice lawyer at the bar of Hudson, and was greatly beloved by the profession on account of his generosity, quick and warm sympathy, his readiness to aid others, and genial qualities.

His interest in young men was exceptionally deep and earnest. They always found in him a warm-hearted as well as clear-headed adviser. At the time of his death he had been for many years a member of the Republican State Central Committee; for ten years a Commissioner of Appeals in the Masonic Grand Lodge of the State; and for twenty years a representative to the Grand Lodge.

Always active for the welfare of his Alma Mater, Mr. Esselstyn was elected in 1869 one of her Trustees. He was an ardent supporter of her best interests, and in his decease the College loses a tried and valued friend.

In 1860 he married the daughter of the late Peter Van Deusen, Esq., who with two children survives him. Mr. Esselstyn had a profound reverence for religion and a deep seated love for the Reformed Church, and was rarely absent from his pew on the Sabbath, although not a communicant. He was highly esteemed for his ability, integrity, and genial, kindly nature, and was greatly beloved by a large circle of friends.

NATHANIEL COGSWELL KINNEY

Was born at New Brighton, Staten Island, N. Y., in 1836. His preparatory education was acquired at Burlington, N. J., at the school of Bishop Doane and under private tutors. He entered Rutgers College in 1852 and was graduated in 1856. After pursuing a course of law at the Albany Law School, he was admitted to the Bar in 1858 and practiced in N. Y. City until the breaking out of the war, when he was appointed 1st Lieutenant in the 18th U. S. Infantry. He was promoted to a Captaincy in 1862, and further for gallant and meritorious services he became

Brevet Major and Lieut. Colonel. He took part in the various battles in which his battalion was engaged, acting part of the time as Aid-de-Camp to Gen. Rousseau After the close of the war he accompanied his regiment to the West and established the first post on the Upper Yellowstone, Fort C. F. Smith. In 1867 he resigned, engaged for a short time in business, but lived, mainly since the war, in Europe. He died May 11, 1881.

Mr. Kinney was a singularly cool-headed and brave officer. By exceptional courage and address he extricated his command on a critical occasion from threatened massacre by overwhelming numbers of Indians. His services to his country were eminent and won honorable recognition.

MOSES P. CLARK.

Moses P. Clark, chief clerk of the District Attorney's office, N. Y., died Jan. 2, 1881, at his home in South Amboy. Mr. Clark had been ill for some weeks, his complaint being enlargement of the liver. He was born in Rahway and was graduated at Rutgers College in 1856. His first official position was secretary to the Committee of Seventy of N. Y. City in 1871, and he did much of the heavy work of that organization. In 1872, on the election of Mr. Phelps to the office of District Attorney, he appointed Mr. Clark his chief clerk. Mr. Clark was forty-two years old, and leaves a widow and three children, the youngest a few months old.

He prepared for college with Bishop Doane at Burlington, N. J., and was admitted to the Freshman Class Oct. 1, 1852. After his graduation from Rutgers in 1856 he came to New York and entered into the employment of Spaulding, Vale & Fuller, a dry goods house in Barclay street He remained with them until the war broke out, when he enlisted in the 9th N. Y. He was mustered in on the 5th of June, 1861, as a sergeant, and was promoted to 2d Lieutenancy during that year. In February, 1863, he was made 1st Lieutenant, and in February, 1865, Captain. As a soldier he had varied experience. He participated among other battles, in that of Fair Oaks, the Seven Days before Richmond, White Oak Swamp, Sulphur Springs, Malvern Hill, Chancellorsville, Gettysburg, Wilderness, Spottsylvania and Cedar Creek. He was mustered out July 8, 1865.

In 1865, he became chief clerk in the office of the Supervisor of Elections in New York City. He was appointed by the late District Attorney, Benjamin K. Phelps, chief clerk in his office, in January, 1873, and continued to occupy that position until his death, which took place on the 3d of January, 1881.

Mr. Clark was regarded by the District Attorney and his assistants as an executive officer of the rarest ability. His duties were arduous, complicated and often embarrassing, and were performed in a manner entirely satisfactory to his superiors in office and to the public.

REV. ISAAC H. COLLIER

Died of typhoid pneumonia on February 19, 1881, at Oakfield, Genesee County, N. Y.

Mr. Collier was born in Athens in 1834. He was one of ten sons and daughters, all of whom reached a mature age, and of whom he is the first removed by death. In early youth he gave his soul to God, and in 1855 became a member of the First Reformed Church of Coxsackie, at that time under the pastoral care of Rev. P. Peltz. After graduating from the Normal school at Albany, he applied himself for some years to teaching. The desire, however, to serve the Lord in the ministry of the Gospel, of which he had become conscious soon after his conversion, called for an instant compliance. His preparatory studies for this work were pursued at the institutions in New Brunswick. He was graduated from Rutgers College in 1859, and

from the Theological Seminary in 1862. In the same year he was licensed to preach by the Classis of Greene. Soon after, he was installed pastor of the church at Caatsban. His subsequent pastorates were in Nassau, Lodi, Schuylerville, N. Y., and in Montville, N. J. In the autumn, 1879, he began to supply the Presbyterian church at Oakfield, N. Y., though the connection with the Classis of Passaic was still continued by him.

Mr. Collier was a close student, an earnest preacher and a devoted pastor. His ministry was crowned with a gratifying success, especially at Caatsban and Schuylerville, where he had gracious revivals. The training of the young for Christ, in connection with the Sabbath school, received his special attention. He left a widow and four young children.

REV. WILLIAM B. VAN BENSCHOTEN.

The death of Rev. Wm. B. Van Benschoten occured June 27, 1880, at his home in Ephratah, Fulton County, N. Y.

His last charge was the churches of Stone Arabia and Ephratah, over which he was settled eight years ago. At the last meeting of Classis, he desired to be released from his pastoral duties, as his health was greatly impaired. He proposed spending the summer in rest, hoping to be able to resume his work in the autumn. But a severe cold was contracted, which, with his broken constitution, after a week of great suffering, terminated fatally.

He was in his early prime, having been born April 15th, 1835. He was graduated from Rutgers College in 1861, and from the Theological Seminary at New Brunswick in 1864. A short time was spent in teaching, when he entered upon his first charge at Wyckoff, N. J.; after four years and a good work, he removed to Lebanon, N J., where his health began seriously to fail. Advised by his physician to seek another climate he accepted a call to the churches of Stone Arabia and Ephratah, to which his last services were given.

He was gifted with an active mind and an exceedingly retentive memory. His friends knew him as large hearted, frank and outsopken, free from pretence and ostentation, and having a love of preaching and the active duties of the ministry which amounted almost to a passion. It was only his restless energy and indomitable will that enabled him to bear up as he did under the growing weight of the malady with which he had to contend for nearly thirty-five years.

In spite of his infirmities and the difficulties of his work, his ministry was greatly blessed. It is a significant fact that during his last pastorate, more than one hundred and forty members were added to his churches on confession of their faith.

JAMES L. H. ELMENDORF, M.D.

James Ludlam Hasbrouck Elmendorf, M. D., son of Rev. Anthony Elmendorf, D.D., was born in Hyde Park, N. Y., in 1843.

He entered the Sophomore Class of Rutgers College in 1860, and graduated in 1863, and until the close of his life retained an intense interest and affection for his Alma Mater, and the associates of his college life.

He received his medical education in New York City and Brooklyn, attending one course at the Twenty-Third street School, and obtaining his Doctor's degree from the Long Island College Hospital in 1866. He opened an office in Brooklyn immediately, and acquired an unusually large practice, in a short time. He was a member of the Kings County Medical Society, the Brooklyn Pathological Society, and was an active member of the Anatomical and Surgical Society of that city, from its foundation. He also devoted much time to histological research.

While thus engaged in the interests and duties of his business, he always retained his early devotion to classical studies, and found his diversion in antiquarian pursuits and possessions. Soon after he left New Brunswick as a student, he united with the North Reformed Church of Brooklyn, which his father had established and was then pastor of, and gave evidence throughout his life of a development of Christian character.

Dr. Elmendorf was married in 1866 to Mary, daughter of John P. Elwell, of Brooklyn, and left her and three sons, at the time of his death.

He was prostrated by a severe illness in 1871, and during the last nine years of his life he was cut off, for months, from professional work.

During 1881 he failed considerably in vigor and could not withstand an attack of pneumonia, which was fatal on Christmas morning of that year.

REV. CHAS. H. T. KRUEGER.

Born in Stettin, North Germany, July 11, 1850, Mr. Krueger came to this country when a lad. Aspiring to preach the gospel, he was willing to undertake the preparatory education, though it involved long and severe self-denial and struggle. He endeavored to work his own way in part through the Grammar School at New Brunswick. He was graduated from the College in 1874, and from the Theological Seminary of the Reformed Church three years later. His first and only field of labor was in the pastorate of of the East Reformed Church of Newark, N. J., over which he was installed June 27, 1877. Here he applied himself with untiring zeal to the liquidation of a church debt, as well as to his pulpit and pastoral duties; and his efforts were crowned with the happiest results. Unfortunately his constitution, never very strong, yielded quickly to a severe cold and cough, and he died at Thomasville, Ga., on Dec. 16, 1880, whither he had gone in quest of health. His ministry, though short, was fruitful, and his character was marked by a cheerful and grateful spirit, while his humility was as unaffected as his piety was earnest and faith superior to all difficulties.

JOHN N. WYCKOFF.

On the second of November, 1880, the name of John N. Wyckoff, of the class of 1874, was added to the roll of Rutgers' dead. He was born at White House, N. J., Feb. 21st, 1852, and in that place spent the early years of his life.

Entering College in 1870 with the class of 1874 he soon exhibited the sterling qualities of mind and heart which placed him at the head of his class in scholarship and endeared his friendship to all those who knew him.

His bent of mind led him to choose the law as his profession, and the same perseverance which characterized him in his college duties he carried into his profession. Entering Harvard Law School Oct. 1, 1875, he completed the course of study in one year, and was graduated in June, 1876, with the degree of LL.B. In June, 1877, he was admitted to practice as an Attorney at Law in the courts of New Jersey, and soon thereafter formed a partnership with his late preceptor, Mr. Martin Wyckoff, under the firm name of M. & J. N. Wyckoff, and began the practice of his profession at Somerville, N. J. His constitution could not stand the strain to which it had been subjected, and in the Spring of 1878 he was forced to seek another climate, if he would arrest the disease, which seemed to be gaining a hold upon him; accordingly he went to Colorado, making Denver his home, and while there filled the position of assistant District Attorney for the Eastern District of Colorado. There he remained till the Fall of '79, when, not deriving the benefit he sought, he returned East and spent the remainder of his life in efforts to regain his health.

HARRINGTON MAPES DODGE.

This highly esteemed son of Mrs. Mary Mapes Dodge, and grandson of the late Professor Mapes, died on Feb. 2, 1881, of congestion of the brain. After his graduation from the Scientific department of Rutgers College in 1875, he was engaged in the Messrs. Scribner & Co.'s Publishing House until about a year before his decease, when he became interested in manufacturing. Genial in manner, of a frank and guileless disposition, uniformly courteous and kind, "Harry," as he was familiarly known, won many appreciative and strong friends. To his mother, the accomplished editor of the St. Nicholas, he was the truest of sons. They were bound together by the strongest ties of affection, pride and respect, each was devoted to each, and the love of mother for son and the reverence of son for parent have never had a better exemplification than in their lives. His tastes were simple and refined. From boyhood he was fond of the violin, and was at the time of his death a pupil of Remenyi, with whom he was a great favorite, both on account of his character and musical promise. He died, greatly lamented by all who knew him, at the early age of twenty-five.

WILLIAM BURNHAM MARSHALL.

Another is added to the large number of promising graduates which our College has recently been called to lose. He was born April 10, 1858, in Valparaiso, Chili, where his father, A. W. Marshall, M. A. (Dartmouth) was, for several years, the Principal of a flourishing High School. His parents returning from Chili when he was a child, he spent most of his life in Metuchen, N. J.

From early boyhood he showed indomitable energy and pluck in overcoming difficulties such as would crush an ordinary character. His recreations were studies in Natural History, so that, without the help of an instructor, he became, while still a youth, thoroughly skilled in the Ornithology and Botany of our State. He supported himself by hard manual labor while in College, and graduated with high honors in the class of 1878. During his Junior year he made public profession of religion in the College Prayer Meeting, and ever afterward certified the sincerity of his faith by the excellence of his works. Immediately after graduation he became Classical Instructor in the New Brunswick High School. Here he wrought with marked success for three years, endearing himself to both pupils and fellow teachers by his helpfulness, sincerity and cheerfulness. His attainments in various directions gave promise of future distinction, and many places of honor waited his acceptance. He had just been called by Mr. Edison to aid him in his work, and all Mr. Marshall's friends thought he had found his true sphere. But incessant and superhuman toil, coupled with self- denial, proved too much for a constitution uncommonly strong, and being well nigh worn out, he fell a victim to typhoid fever, dying Sept. 16, 1881.

The untimely departure of such a "Minister and Interpreter of Nature," as he bid fair to become, leaves a void which it is hard to fill.

From
THE LIBRARIAN OF
RUTGERS COLLEGE,
New-Brunswick, N. J.

CATALOGUE

—OF—

RUTGERS COLLEGE,

—AT—

NEW BRUNSWICK, N. J.

1882-'83.

Catalogue

OF THE

OFFICERS AND STUDENTS

OF

RUTGERS COLLEGE,

NEW BRUNSWICK, N. J.

1882-'83.

Founded A. D. 1770.

PRINTED FOR THE COLLEGE,
AT THE FREDONIAN OFFICE, NEW BRUNSWICK.
1882.

Calendar.

1882–'83.

1882.	JUNE 21,	Wednesday: Commencement. Vacation.
"	SEPTEMBER 20,	Wednesday: First Session begins.
"	SEPTEMBER 20,	Wednesday: Examinations for admission.
"	DECEMBER 20,	Wednesday: First Session ends. Vacation.
1883.	JANUARY 4,	Thursday: Second Session begins.
"	JANUARY 25,	Day of Prayer for Colleges.
"	APRIL 4,	Wednesday: Second Session ends. Vacation.
"	APRIL 12,	Thursday: Third Session begins.
"	JUNE 17,	Sunday: Baccalaureate Sermon.
"	JUNE 18-19,	Monday (10 A. M.) and Tuesday: Examinations for admission.
"	JUNE 19,	Tuesday: Meeting of Alumni: Exercises of the Literary Societies: Junior Exhibition in the Evening.
"	JUNE 20,	Wednesday: Commencement. Vacation.
"	SEPTEMBER 20,	Thursday: First Session begins.
"	SEPTEMBER 20,	Thursday: Examinations for admission.
"	SEPTEMBER 20,	Thursday: Examinations for removal of June Conditions.
"	DECEMBER 19,	Wednesday: First Session ends. Vacation.
1884.	JANUARY 3,	Thursday: Second Session begins.

Trustees.

EX-OFFICIO:

His Excellency, GEORGE C. LUDLOW,.....New Brunswick.

Governor of the State of New Jersey.

Hon. MERCER BEASLEY, LL.D.,.....Trenton.

Chief Justice of the State of New Jersey.

Hon. JOHN P. STOCKTON,.....Trenton.

Attorney-General of the State of New Jersey.

BY ELECTION:

Names.	*Residences.*	*Date of Election.*
Merrill Edwards Gates, Ph.D., LL.D., *President of the College.*	New Brunswick,	March 7, 1882.
Rev. Gustavus Abeel, D.D.,	Newark,	July 22, 1845.
Hon. John Hopper,	Paterson,	July 22, 1851.
Hon. F. T. Frelinghuysen, LL.D.,	Washington, D. C.,	July 21, 1851.
Rev. T. E. Vermilye, D.D., LL.D.,	New York City,	July 24, 1849.
Maurice E. Viele, Esq.,	Albany, N. Y.,	July 27, 1853.
Rev. David D. Demarest, D.D.,	New Brunswick,	April 13, 1858.
Hon. Joseph P. Bradley, LL.D.,	Washington, D.C.,	June 29, 1859.
Rev. Francis M. Kip, D.D.,	Stapleton, S. I.,	Oct. 16, 1860.
Henry L. Janeway, Esq.,	New Brunswick,	April 8, 1862.
Johnson Letson, Esq.,	New Brunswick,	June 16, 1863.
Rev. Garret C. Schanck,	Marlboro,	April 11, 1866.
Stafford R. W. Heath, Esq.,	Newark,	April 11, 1866.
Rev. Talbot W. Chambers, D.D.,	New York City,	June 17, 1868.
Rev. Joachim Elmendorf, D.D.,	Poughkeepsie, N.Y.,	April 14, 1869.
Rev. Paul D. Van Cleef, D.D.,	Jersey City,	April 14, 1869.

Names.	*Residences.*	*Date of Election.*
James W. Schermerhorn, Esq.,	New York City,	Feb. 7, 1871.
William C. Fowler, Esq.,	Brooklyn, N. Y.,	April 13, 1871.
Samuel Sloan, Esq.,	New York City,	June 20, 1871.
Hon. George C. Ludlow,	New Brunswick,	June 17, 1873.
Hon. William A. Newell,	Olympia, W. T.,	June 17, 1873.
Rev. Isaac S. Hartley, D.D.,	Utica, N. Y.,	June 17, 1873.
Hon. Theodore F. Randolph,	Morristown,	March 31, 1874.
S. O. Vanderpoel, M.D., LL.D.,	New York City,	June 22, 1875.
Theodoric R. Westbrook, LL.D.,	Kingston, N. Y.,	Oct. 26, 1875.
Rev. William Ormiston, D.D.,	New York City,	June 20, 1876.
Rev. John Gaston, D.D.,	Passaic,	June 20, 1876.
Henry W. Bookstaver, Esq.,	New York City,	June 20, 1876.
Robert F. Ballantine, Esq.,	Newark,	June 20, 1876.
Rev. William Rankin Duryee, D.D.,	Jersey City,	March 5, 1878.
Rev. William J. R. Taylor, D.D.,	Newark,	June 18, 1878.
Rev. Abraham R. Van Nest, D.D.,	Philadelphia, Pa.,	Oct. 29, 1878.
John Lefferts, Esq.,	Flatbush, L. I.,	Oct. 29, 1878.
William Clark, Esq.,	Newark,	Oct. 29, 1878.
Hon. George H. Sharpe,	Kingston, N. Y.,	March 4, 1879.
David Bingham, Esq.,	East Orange,	March 7, 1882.

Rev. DAVID D. DEMAREST, D.D.,.....New Brunswick,

Secretary of the Board.

JOHN C. ELMENDORF, Esq.,.....New Brunswick,

Treasurer.

Office—39 Albany Street.

James Thomas, *Janitor.*

Faculty.

MERRILL EDWARDS GATES, PH.D., LL.D.,

PRESIDENT,

THEODORE FRELINGHUYSEN *Professor of Moral Philosophy.*

REV. WILLIAM HENRY CAMPBELL, D.D., LL.D.,

EX-PRESIDENT,

Professor of the Evidences of Christianity.

GEORGE H. COOK, LL.D.,

VICE-PRESIDENT,

Professor of Geology and Agriculture.

REV. DEWITT TEN BROECK REILEY, A.M.,

Professor of the Latin Language and Literature.

REV. T. SANDFORD DOOLITTLE, D.D.,

COLLEGIATE CHURCH *Professor of Rhetoric, Logic, and Mental Philosophy.*

REV. JACOB COOPER, D.D., D.C.L.,

Professor of the Greek Language and Literature.

JOHN CONOVER SMOCK, A.M.,

**Professor of Mining and Metallurgy.*

REV. CARL MEYER, D.D.,

Professor of Modern Languages.

* The duties of this professorship are not at present discharged; the chair awaits endowment.

FRANCIS CUYLER VAN DYCK, A.M.,
Professor of Physics and Experimental Mechanics.

EDWARD A. BOWSER, LL.D., C.E.,
Professor of Mathematics and Engineering.

ISAAC EDGAR HASBROUCK, A.M.,
Professor of Mathematics and Graphics.

GEORGE BENJAMIN MERRIMAN, A.M.,
Professor of Mathematics and Astronomy.

PETER TOWNSEND AUSTEN, PH.D., F.C.S.,
Professor of General and Applied Chemistry.

REV. CHARLES EDWARD HART, D.D.,
Professor of the English Language and Literature.

*_____

VOORHEES *Professor of History, Political Economy and Constitutional Law.*

FRANK LORING DODDS, 2D LIEUTENANT 9TH U. S. INFANTRY,
Professor of Military Science and Tactics.

FRANCIS AUGUSTUS WILBER, B.S.,
Assistant in Analytical Chemistry.

ISAAC EDGAR HASBROUCK, A.M.,
Librarian.

*To be filled before January 1, 1883.
The names of the Faculty are arranged according to seniority of appointment with the exception of the first two.

Catalogue of Students

For the Year Beginning Sept. 20, 1882.

POST-GRADUATE STUDENTS.

Names.	*Residences.*	*Rooms.*
W. Muss Arnolt, B. S.,	New York,	51 Hertzog Hall.
Theo. Burgess Booraem, Jr.,	New Brunswick,	54 Bayard St.
J. Chester Chamberlain,	Madanapalle, India,	George & Albany Sts.
William I. Chamberlain,	Madanapalle, India,	31 Hertzog Hall.
Will S. Cranmer,	Jersey City,	13 Hertzog Hall.
Charles L. Edgar,	New Brunswick,	New Brunswick.
John G. Fagg,	Madison, Wis.,	48 Hertzog Hall.
Abel H. Huizinga,	Zeeland, Mich.,	46 Hertzog Hall.
Joel Loucks,	Palatine Bridge, N. Y.,	21 Hertzog Hall.
John Morrison,	Fishkill-on-Hud'n, N. Y.,	36 Hertzog Hall.
Henry DuBois Mulford,	Hudson, N. Y.,	45 Albany St.
Edwin F. See,	Tarrytown, N. Y.,	44 Hertzog Hall.
Livingston Ludlow Taylor,	Newark,	14 Hertzog Hall.
Horace Grant Underwood,	New Durham,	32 Hertzog Hall.

SENIOR CLASS.

Classical Section.

Names.	*Residences.*	*Rooms.*
HENRY WARREN BEEBE,	New Brunswick,	117 Somerset St.
GEORGE B. MCCLELLAN BELL,	New Brunswick,	71 French St.
JOHN TALLMADGE BERGEN,	Flatlands, L. I.,	39 Hertzog Hall.
JOHN HENRY BRANDOW,	Coxsackie, N. Y.,	40 Hertzog Hall.
GEORGE ZABRISKIE COLLIER,	New Brunswick,	71 Bayard St.
FREDERICK WALKER CUTLER,	Morristown,	69 Albany St.
WILLIAM H. STEELE DEMAREST,	New Brunswick,	Seminary Place.
JOHN HANDLEY,†	Sayreville,	Sayreville.
FREDERICK PARSELL HILL,	East New Brunswick,	Raritan Ave.
JOHN LAUBENHEIMER,	Bergen Point,	9 Easton Ave.
GEORGE MUNN LILBURN,	Haverstraw, N. Y.,	4 Kirkpatrick St.
WILLIAM CHRISTIAN MILLER,	Albany, N. Y.,	69 Bayard St.
ROBERT V. PALMER,	Poughkeepsie, N. Y.,	59 French St.
HARRY MORTIMER PETERS,	Newark,	Newark.
JOHN LUDLOW SCHENCK,	Neshanic,	78 Bayard St.
JARED WATERBURY SCUDDER,	Brooklyn, N. Y.,	George & Albany Sts.
ALFRED FORD SKINNER,	Belleville,	123 George St.
THEODORE STRONG,	New Brunswick,	Hamilton St.
DUNCAN DUNBAR SUTPHEN,	Newark,	123 George St.
HENRY JUDD WARD,	Middleville, N. Y.,	6 Paterson St.

Scientific Section.

Names.	*Residences.*	*Rooms.*
EDSON DEWITT EATON,	Stockholm,	59 French St.
GEORGE ELTON JENKINS,	Mine Hill,	59 French St.

† Partial.

JUNIOR CLASS.

Classical Section.

Names.	*Residences.*	*Rooms.*
PETER S. BEEKMAN,	New Brunswick,	Hamilton St.
MATTHEW LINN BRUCE,	Andes, N. Y.,	59 Paterson St.
WILLIAM PATERSON BRUCE,	Andes, N. Y.,	59 Paterson St.
PETER CRISPELL,	Hurley, N. Y.,	4 Kirkpatrick St.
HENRY EVERTSON COBB,	Flushing, L. I.,	31 Hertzog Hall.
GEORGE DAVIS,	White House Station,	37 Hertzog Hall.
BENJAMIN EDWARD DICKHAUT,	East New York, L. I.,	39 Hertzog Hall.
LEVI B. EDWARDS,	New Brunswick,	Codwise Ave.
WILLIAM GOODWIN LUDLOW,	New Brunswick,	81 Albany St.
JAMES GULICK MEYER,	Mattcawan, N. Y.,	Hamilton St.
CHARLES EDWARD PATTISON,	Metuchen,	Metuchen.
FERD. VANDERVEER ROGERS,	Davenport, Iowa,	79 George St.
JOHN A. THOMPSON,	New Kingston, N. Y.,	35 Hertzog Hall.
HENRY VAN BRACKLE,†	Hazlet,	24 Hertzog Hall.
J. ALFRED VAN NEST,	New Brunswick,	2 French St.

Scientific Section.

Names.	*Residences.*	*Rooms.*
GEORGE H. BLAKELY,	Middlebush,	Middlebush.
JOHN EDWARD HILL,	Newark,	Newark.
JACKSON JAQUES,	Iselin,	Iselin.
WILLIAM H. LUSTER, JR.,	Elizabeth,	Elizabeth.
JOHN WM. MCKELVEY,	New Brunswick,	57 Albany St.
FRANKLIN STODDART SMITH,	New Brunswick,	Somerset St.
CYRUS W. FIELD SPROUL,	Keyport,	172 Burnet St.
THOMAS D. VAN SYCKEL,	Newark,	Newark.
HENRY R. L. WORRALL,	Elizabeth,	Elizabeth.

†Partial.

SOPHOMORE CLASS.

Classical Section.

Names.	*Residences.*	*Rooms.*
JOHN MITCHELL ALLEN,	Annandale,	43 Hertzog Hall.
MORRIS NORTON BEMUS,	Jamestown, N. Y.,	George & Albany Sts.
LOUIS BISHOP,	New Brunswick,	87 George St.
WILLIAM HENRY BOOCOCK,	Coxsackie, N. Y.,	38 Hertzog Hall.
W. EDWIN FLORANCE,	New Brunswick,	128 Neilson St.
J. DEPUY HASBROUCK,	High Falls, N. Y.,	55 Albany St.
EDWIN KNICKERBOCKER LOSEE,	Upper Red Hook, N. Y.,	78 Bayard St.
STEPHEN HENRY OHLEN,†	Madison,	6 Paterson St.
EUGENE B. MATTHEWS,	Bound Brook,	Bound Brook.
FRANK SEYMOUR SCUDDER,	Upper Red Hook, N. Y.,	78 Bayard St.
ADRIAN VERMEULE, JR.,	New Brunswick,	Terrace Hill.
HENRY MARTIN VOORHEES,†	Flemington,	59 Bayard St.
LOUIS AUGUSTUS VOORHEES,	New Brunswick,	75 Carroll Place.

Scientific Section.

Names.	*Residences.*	*Rooms.*
ASHER ATKINSON,	New Brunswick,	Livingston Ave.
WILLIAM HENRY BARNES,	E. Hampton, N. Y.,	75 George St.
ABRAHAM DEYO BRODHEAD,	Kingston, N. Y.,	110 George St.
M. MOUNT CORLE,	Neshanic,	59 Bayard St.
CHARLES DESHLER,	New Brunswick,	College Ave.
JOHN ELMER,	Fairton,	62 Church St.
GEORGE WILLIAM HART, JR.,	Metuchen,	Metuchen.
WILLIAM LESUEUR HAYNES,	Raritan,	35 Schureman St.
PHILIP LINDSLEY,	Raritan,	49 Schureman St.
MONTFORT MATTHEWS,	Bound Brook,	Bound Brook.
ARTHUR COYLE PAYNE,	College Point, L. I.,	Metuchen.
FRANK VAN BRAKLE,	Keyport,	172 Burnet St.
CHARLES VAN WINKLE,	Passaic,	George & Albany Sts.

† Partial.

FRESHMAN CLASS.

Classical Section.

Names.	*Residences.*	*Rooms.*
George Van Nest Baldwin,	New Brunswick,	103 George St.
William Samuel Bishop,	East Orange,	4 Kirkpatrick St.
Cornelius Bruyn,	Kingston, N. Y.,	72 Paterson St.
Lewis Birge Chamberlain,	Newburgh, N. Y.,	37 Hertzog Hall.
Frederick Deshler,	New Brunswick,	College Ave.
Edwards Wilkins Dewey,	Fort Plain, N. Y.,	55 Bayard St.
John DeWitt, Jr.,	New Brunswick,	Seminary Place.
Warren Hardenbergh Dixon,	Jersey City,	Jersey City.
Alfred Edwin Gregg,	Schenectady, N. Y.,	12 Hertzog Hall.
David Torrens Kilpatrick,	New Brunswick,	Hamilton Ave.
Charles Baylis Ludlow,	New Brunswick,	81 Albany St.
Herbert Lindsley Mattice,	Pine Plains, N. Y.,	69 Albany St.
Ernest Amasa Ohlen,	Madison,	6 Paterson St.
DeWitt Van Dyck Reiley,	New Brunswick,	Hamilton St.
Gustav Schumacher,	Brooklyn, N. Y.,	16 Hertzog Hall.
Aaron Longstreet Stillwell,	Somerville,	57 Albany St.
Peter Stillwell,	White House,	57 Albany St.
Thomas Alfred Stoddart,	Rahway,	Rahway.
George Edwin Talmage,	Amoy, China,	16 Hertzog Hall.
William Spader Willis,	New Brunswick,	Hertzog Hall.

Scientific Section.

Names.	*Residences.*	*Rooms..*
Louis David Blauvelt,	New York City,	57 Albany St.
Charles Sanderson Cathcart,	New Brunswick,	62 Welton St.
U. Grant Davis,	White House,	49 Schureman St.
Clarence M. DuBois,	Bridgeton,	49 Schureman St.
John Moyer Farley,	Fort Plain, N. Y.,	69 Albany St.

Names.	*Residences.*	*Rooms.*
Roswell J. Fulton,	New Brunswick,	8 Bishop St.
William Hockman,	Red Bank,	79 George St.
Torrey Kinsman Jewett,	Elizabeth,	Elizabeth.
Laurence Edmund McCabe,	East Hampton, N. Y.,	79 George St.
Frank Oscar Nelson,	New Brunswick,	Piscataway.
Fred. Schuylar Nelson,	New Brunswick,	Piscataway.
John Howard Porter,	Bordentown,	Bordentown.
Joseph Borden Reynolds,	Bordentown,	Bordentown.
Frank W. Ribble,	East Millstone,	East Millstone.
William Manuel Riva,	Havana, Cuba,	6 Paterson St.
Samuel Davis Stryker, Jr.,	Newark,	Newark.
George Mercer Valentine,	Woodbridge,	73 Albany St.
George Anthony Viehman,	New Brunswick,	38 Dennis St.
William H. Waldron,	New Brunswick,	143 George St.

SPECIAL COURSE IN CHEMISTRY.

FIRST YEAR.

Names.	*Residences.*	*Rooms.*
Henry Rutgers Baldwin,†	New Brunswick,	103 George St.
DeWitt Edward Rogers,†	Fishkill-on-Hudson, N. Y.,	28 Paterson St.

SECOND YEAR.

Names.	*Residences.*	*Rooms.*
Charles W. Harrison,	Verona,	49 Schureman St.
Arthur Elliot Rutherfurd,	Newark,	123 George St.
Frederick Thompson Ward,	Newark,	Newark.

† Partial.

Recapitulation.

NEW JERSEY,	85
NEW YORK,	37
MICHIGAN,	1
IOWA,	1
WISCONSIN,	1
INDIA,	2
CUBA,	1
CHINA,	1
TOTAL	129

SUMMARY.

POST GRADUATES,	13
CLASSICAL DEPARTMENT.	
SENIORS,	20
JUNIORS,	15
SOPHOMORES,	13
FRESHMEN,	20
SCIENTIFIC DEPARTMENT.	
SENIORS,	2
JUNIORS,	9
SOPHOMORES,	13
FRESHMEN,	19
SPECIAL STUDENTS IN CHEMISTRY.	
FIRST YEAR,	2
SECOND YEAR,	3
TOTAL IN COLLEGE,	129

Classical Department.

1. Requisites for Admission.

Every applicant for admission must submit to the President proper testimonials of a good moral character.

Examinations for admission to the College will be held on Monday and Tuesday, June 18th and 19th, 1883, beginning at 10 o'clock Monday morning. Applicants for admission may also be examined on Thursday, September 20th, at 9 A. M. Students who can do so are advised to be present for the June examinations.

Examinations will be both written and oral.

Candidates for advanced classes must sustain a satisfactory examination upon the subjects previously studied by the class which they propose to enter, as well as on those required for admission into the Freshman Class. Under this regulation students are admitted at any time during the Collegiate year.

Students who desire to pursue selected branches of study may do so, if properly prepared to pursue them with the regular classes. Special provision is made for such students in the Scientific Department.

The requirements for admission are not materially changed; but *notice is given below of changes to go into effect in* 1884. It is expected that students who present themselves will be prepared, by careful study and by *reviews* of their work, to pass successfully a thorough examination on the subjects which are required.

Hereafter *only such students will be admitted with conditions* as are, in the opinion of the examiners, so nearly prepared as to be able to make up all deficiencies during the first term and the Christmas vacation, while maintaining a good standing in their class.

Conditioned students will have opportunity given them to remove their entrance conditions as early as possible in the

first term. On Thursday, January 3, 1883, the first day of the second term, the last opportunity to remove conditions will be given. Students who have not complied with "conditions," and passed satisfactory examinations before the 4th of January, will fall back, without action of Faculty, into the class below, or cease to be candidates for a degree.

After 1883, a shorter time will be fixed within which conditions must be removed, or class-standing will be lost.

PRIZES FOR THE BEST ENTRANCE EXAMINATIONS.

A First Prize of One Hundred Dollars in cash and a Scholarship Yielding $300, to apply on term bills; and a Second Prize of Fifty Dollars in cash and a Scholarship Yielding $300, to apply on term bills, will be awarded to the students who shall be adjudged by the Examiners to have passed the best examination among the applicants for admission to the Freshman Class, in June, 1883. The names of the successful candidates, and of the schools at which they prepared for college, will be printed in the annual catalogue. The cash prizes will be awarded, one-half at matriculation and one-half at the end of the second term of the Freshman year. The scholarship funds will be applied to cancel term bills for tuition during the course, and will be forfeited if the student's general average on the work of any year falls below 80 on a scale of 100. Students admitted "on certificate" from certain preparatory schools,* must take the regular entrance examinations with other applicants, if they wish to compete for these prizes in the special examinations for their award.

These two cash prizes are this year given by Hon. Samuel Sloan, of New-York, a member of the Board of Trustees. It is expected that two such prizes will be given each year for the best entrance examinations.

The following, or a full equivalent, are the requirements for admission to the Freshman Class:

*A suitable blank, with full specifications, for such "certificate" will be sent, on application to the Secretary.

LATIN.—Harkness', or Allen and Greenough's, or Gildersleeve's Latin Grammar, including principles of Prosody.

The first part of Fischer's Manual of Latin Grammar and Composition, or Jones' Latin Composition, or the first 44 sections of Arnold's Latin Prose Composition.

Cæsar's Gallic War.

Virgil, Æneid, 6 Books.

Seven Orations of Cicero, of which it is recommended that the orations for the Poet Archias, on the Manilian Law, and for King Deiotarus shall be three.

Questions on the subject-matter, the history, the geography and the mythology involved in the Latin read. [*After* 1883, *students will be tested on reading "at sight" easy Latin, (e. g., Cæsar, Sallust, Cicero, Quintus Curtius;) and a map of Italy, to be drawn from memory, at the examination, will be required, together with familiarity with the (classical) geography of Gaul and Spain; and Smith's Smaller History of Rome, (or an equivalent history of this period,) to the time of the Empire*].

GREEK.—Hadley's or Goodwin's Greek Grammar, including the principles of Prosody.

Xenophon's Anabasis—three books, or an equal amount of Goodwin's Greek Reader.

Arnold's First Greek Book, or Whiton's First Greek Book, entire; and Jones' Exercises in Greek Composition or Sidgwick's First Greek Writer, Introduction and 60 exercises.

Homer.—The Iliad, three books, (omitting the catalogue of the ships.)

Questions on the subject matter, etc., as above.

[*After* 1883, *Greek History will be required, Smith's Smaller History of Greece, or an equivalent; students will be tested at the entrance examinations in reading at sight easy Greek prose; and a map of Greece, with a good knowledge of the Geography of the Greek Islands and of Asia Minor will be required.*]

MATHEMATICS.—Arithmetic complete, including the Metric system.

Algebra through Quadratic Equations (including Radicals),

or the first eighteen chapters of Wentworth's Complete Algebra.

Plane Geometry—three books of Wentworth, or an equivalent, *including Problems.*

GERMAN—Ahn's or Whitney's Grammar. [Conditions here have some extra time allowed for their removal].

THE ENGLISH BRANCHES:—

Geography;—

English Grammar;—

Spelling;—

History of the United States; (Higginson's Young Folks' History; or Swinton's Condensed History of United States; or Seavey's Goodrich.)

[*After* 1883, a short essay will be required, to be written at the examination, on some theme drawn from books announced in advance; the essay to be correct in spelling, punctuation, division into paragraphs, grammar and expression.

In June, 1884, the themes will be drawn from these books, which all students who apply for admission then should have read carefully: Shakespeare's *Julius Cæsar;* Scott's *Lady of the Lake;* Irving's *Sketch-Book.*]

2. Suggestions in Regard to Preparation.

LATIN.—In preparing in Latin, the student should give more attention to the prose than the poetry of the language.

Besides the common rules he should be thoroughly drilled in the use of the moods and tenses, the consecution of tenses, the gerundive construction, etc., and should be taught to analyze the sentence into its different parts.

LATIN COMPOSITION.—The student should have as much exercise in writing Latin as possible. From the first, exercises in rendering English into Latin, both orally and in writing, are earnestly recommended.

PRONUNCIATION.—The system followed is the Roman. For correctness of pronunciation, the rules of prosody are necessary to those who have not been thoroughly accustomed to the correct sound of the Latin words.

GREEK.—The applicant must be thoroughly familiar with

the leading principles of the whole Grammar, including accent, quantity and prosody.

In pronunciation, the accent must be followed in prose; but in poetry, regard will be had only to quantity.

Work done in reading other authors than those named in the requirements will be accepted, provided the pupil can pass upon a *full* equivalent.

MATHEMATICS.—Attention is especially called to the Metric System of Weights and Measures, a practical knowledge of which is indispensable, since it is *used* in the class-room; and to the *essential importance of a thorough preparation in the elements of Algebra*, on which subsequent success in mathematics so much depends. The mistake is often made of passing too hurriedly over the first few chapters of Algebra. The whole book will be more quickly and surely mastered if the first part be studied slowly and thoroughly.

In preparing in Mathematics the student *should acquire a proficiency and readiness in the application of the principles; and to that end the solution of numerous and varied examples is earnestly recommended.* It is also desirable to cultivate habits of neatness and order in the presentation of work on the blackboard.

U. S. HISTORY.—Candidates for admission are examined in the History of the United States, with special reference to the colonization of the several States, the forms of government which existed previous to the Revolution, the causes and principal events of the Revolution, the period of the Confederation, the establishment of the Federal Constitution, with the general history subsequent to that event.

3. Course of Instruction.

The COURSE OF INSTRUCTION occupies four years, with three terms in each year.

The following is a scheme of the studies of the course. This scheme is not always strictly followed, either in the order of studies or in the use of the particular text-books named; but it furnishes an exhibit of the amount of work required of students during the four years, and indicates to candidates for advanced standing the equivalents which will be accepted from them:—

Freshman Class.

Exercises during the year in Composition and Declamation.
Bible-Class Sabbath morning.

FIRST TERM.

1. LATIN.—Livy; Roman History; Composition.
2. GREEK.—Lucian's Timon, or three books of Homer; Sidgwick's First Greek Writer, beginning with the 61st Exercise.
3. MATHEMATICS.—Wentworth's Geometry, from Book IV.
4. RHETORIC.—B. Kellogg; Lectures; Essays.
5. PHYSIOLOGY.—Dalton; Lectures.
6. ENGLISH LITERATURE.—Trench.

SECOND TERM.

1. LATIN.—Livy; Composition; Roman History.
2. GREEK.—Demosthenes' Olynthiac Orations, 2d and 3d, and one Phillipic; Sidgwick's First Greek Writer finished; Jebbs' Primer of Greek Literature.
3. MATHEMATICS.—Wentworth's Geometry completed; Wentworth's Algebra from Logarithms.
4. ENGLISH LITERATURE.—History of the English Language; Study of Words, Trench.
5. ELOCUTION.—Lectures.
6. ENGLISH COMPOSITION.—Exercises.

THIRD TERM.

1. LATIN.—Horace; Composition; Antiquities.
2. GREEK.—Isocrates' Panegyric, Ed. Felton; Wilkins' Manual of Greek Prose.
3. MATHEMATICS.—Wentworth's Algebra completed.
4. BOTANY.—Gray.
5. ENGLISH LITERATURE.—Bacon; Manual.
6. ENGLISH COMPOSITION.—Exercises.

Sophomore Class.

Exercises during the year in Composition and Declamation.
Bible-Class Sabbath morning.

FIRST TERM.

1. LATIN.—De Officiis; Latin Composition; Antiquities.
2. GREEK.—Sophocles' Œdipus Rex; Wilkins' Manual of Greek Prose Composition; Lectures on Greek Literature.

3. MATHEMATICS.—Trigonometry, Plane and Spherical.
4. MODERN HISTORY.—Freeman's Outlines, with Essay-Writing.
5. ENGLISH LITERATURE.—Shakespeare, Essays in Criticism.

SECOND TERM.

1. LATIN.—Tacitus; Plautus; Latin Literature; Composition.
2. GREEK.—Thucydides, one book; Wilkins' Manual of Greek Prose Composition; Lectures on Numismatics, with Illustrations.
3. MATHEMATICS.—Trigonometry completed; Bowser's Analytic Geometry.
4. MODERN HISTORY.—Freeman's Outlines, with Essays by the Class.
5. ENGLISH LITERATURE.—Essays in Literary Criticism, and Examinations upon authors read in private.

THIRD TERM.

1. LATIN.—Horace; Composition; Latin Literature.
2. GREEK.—Aristophanes' Knights, Koch's Ed.; Wilkins' Manual of Greek Prose Composition completed; Greek Antiquities; Lectures on the History and Deciphering of Manuscripts, with Illustrations.
3. MATHEMATICS.—Bowser's Analytic Geometry.
4. CONSTITUTIONAL HISTORY OF ENGLAND.—Creasy.
5. ENGLISH LITERATURE.—Essays in Literary Criticism, and Examinations upon authors read in private.

Junior Class.

Exercises during the year in Composition and Original Declamation. Bible-Class Sabbath morning.

FIRST TERM.

1. PHYSICS.—Deschanel: Lectures, with Experiments.
2. INORGANIC CHEMISTRY.—Lectures, with Experiments; Barker.
3. MENTAL PHILOSOPHY.—Porter's Elements of Intellectual Philosophy, and Lectures, with Essays on Metaphysical Subjects.
4. GERMAN OR FRENCH.
5. LATIN.—Juvenal, Plautus, Early Latin and Inscriptions, Archæology.

ELECTIVE STUDIES, at least one of which is to be pursued:

1. MATHEMATICS.—Differential and Integral Calculus, Bowser.
2. ANALYTICAL CHEMISTRY.—Blowpipe Analysis, Nason; Qualitative Analysis, Appleton; Lectures; Laboratory Practice.
3. ENGLISH.—Anglo-Saxon; Chaucer.

SECOND TERM.

1. PHYSICS.—Deschanel; Lectures, with Experiments.
2. INORGANIC CHEMISTRY.—Lectures, with Experiments; Barker.
3. MENTAL PHILOSOPHY.—Porter's Elements of Intellectual Philosophy, and Lectures; Essays on Metaphysical Subjects.
4. LOGIC.—Thompson's Outlines of the Laws of Thought.
5. GREEK.—Plato's Phædo, Wagner's Edition; or Buckholtz Anthology, 2d Bändchen.

ELECTIVE STUDIES, at least one of which is to be pursued:

1. GERMAN OR FRENCH.
2. MATHEMATICS.—Calculus, Bowser.
3. ANALYTICAL CHEMISTRY.—Qualitative Analysis, Appleton; Lectures; Laboratory Practice.
4. ENGLISH.—Shakespeare.

THIRD TERM.

1. ASTRONOMY.—Newcomb and Holden.
2. INORGANIC CHEMISTRY.—Lectures, with Experiments; Barker.
3. HISTORY OF CIVILIZATION.—Guizot; Essays.
4. GERMAN.

ELECTIVE STUDIES, at least one of which is to be pursued:

1. LATIN.—Quintilian; Roman History; Information on Roman Oratory and Lectures on Archæology.
2. MATHEMATICS.—Calculus, Bowser.
3. ANALYTICAL CHEMISTRY.—Qualitative Analysis, Appleton; Lectures; Laboratory Practice.
4. ENGLISH.—Milton.
5. GREEK.

Senior Class.

Exercises during the year in Composition and Original Declamation. Bible-Class Sabbath morning.

FIRST TERM.

1. MORAL PHILOSOPHY.—Calderwood's Handbook; Lectures.
2. POLITICAL ECONOMY.—Bowen and Perry; Lectures; Essays.
3. ORGANIC CHEMISTRY.—Pinner-Austen; Lectures, with Experiments: two hours per week.

4. PHYSICS.—Deschanel; Lectures.

ELECTIVE STUDIES, at least one of which is to be pursued:

1. GREEK.—Aristotle's Categoriæ with Porphyry's Isagoge.
2. ASTRONOMY.—Loomis' Practical Astronomy; Observatory Work; Lectures.
3. MODERN LANGUAGES.—German.
4. ANALYTICAL CHEMISTRY.—Quantitative Analysis, Appleton; Lectures; Laboratory Practice.
5. HEBREW.—Extra.
6. GREEK.

SECOND TERM.

1. MORAL PHILOSOPHY.—Calderwood; Butler; Lectures.
2. INTERNATIONAL LAW.—Woolsey.
3. CONSTITUTION OF THE UNITED STATES.—Pomeroy and Cooley; Essays.
4. CHEMISTRY.—Organic Chemistry; Pinner-Austen; Lectures, with Experiments: two hours per week.
5. GEOLOGY.—Lectures, the last four weeks of the term.

ELECTIVE STUDIES, at least one of which is to be pursued:

1. LATIN.—Cicero, De Oratore, Academics; Cicero's Philosophy.
2. ASTRONOMY.—Practical Astronomy.
3. MODERN LANGUAGES.—German.
4. ANALYTICAL CHEMISTRY.—Quantitative Analysis, Appleton; Lectures; Laboratory Practice.
5. HEBREW.—Extra.
6. GREEK.

THIRD TERM.

1. MORAL PHILOSOPHY.—Butler's Analogy.
2. GEOLOGY.—Lectures.
3. ARCHITECTURE.—Lectures.

ELECTIVE STUDIES, at least one of which is to be pursued:

1. GREEK.—Trendelenburg's Elementa Log., Aristot.; Lectures on the Organon.
2. MODERN LANGUAGES.—German or French.
3. ANALYTICAL CHEMISTRY.—Quantitative Analysis, Appleton; Lectures; Laboratory Practice.
4. ASTRONOMY.—Practical Astronomy.
5. HEBREW.—Extra.
6. LATIN.

4. Remarks on the Course of Study.

In the above schedule all the Studies up to the close of the Sophomore year are obligatory, and are intended to be of such a character as will be equally desirable whatever subsequent profession or career is chosen. During the Junior and Senior years certain subjects are required of all regular students, while others are made elective, at least one of which must be pursued.

MORAL PHILOSOPHY AND THE EVIDENCES OF CHRISTIANITY.

Moral Philosophy is taught during the Senior year by the study of text-books, by comments and criticisms, and by lectures. Full and intelligent discussion in the class-room is encouraged, in the belief that mere memorizing and reciting does not so teach such truth as to make it vitally the students' own. A Sabbath morning Bible-Class, which all the students attend, is conducted by the President. Lectures on the Evidences of Christianity are delivered by the Ex-President of the College.

LANGUAGES.

LATIN.—Prose authors of the Classical period are read first, and the thorough grammatical drill is given upon the language in its most correct form. Next a prose author of the post-classical period is read. Then the poets, at least one in each literary period, are taken up in their chronological order. The course is concluded with a rhetorical and a philosophical treatise. Exercises in Latin Composition are continually required of the student. History, archæology, and the social life of the Romans are taught by lectures and by an unusually full collection of charts, photographs, fac-similes, etc.

GREEK.—The Classical Greek authors are read during the entire Freshman and Sophomore years, one term of the Junior, and two terms of the Senior year. The course is intended to embrace at least one complete treatise from a leading author belonging to each period from Homer to Lucian. While the amount read is distinctly indicated by the Catalogue, it is the

purpose to vary the authors, or the portions from the same author, every year. Term examinations are in writing.

Promising students are encouraged to take special courses of study, in addition to the regular class work; and private instruction, supplemented by an efficient Library, is constantly given without charge. The following books of reference are recommended: Smith's Classical Dictionaries, 6 vols; Jelf's Greek Grammar; Krüger's Greek Grammar and Kühner's Ausführliche griechische Grammatik; Liddell and Scott's Lexicon, 6th Oxford Edition; Grote's History of Greece and Mahaffy's History of Greek Literature.

English Language and Literature.—The course in English embraces the elective study of Anglo-Saxon and early English, with the required study of the history of the language and the history of the literature. The principal English Classics are read in order. The selection is varied every year. A course of private reading is prescribed, upon which examinations are held the 2d and 3d terms of the Sophomore year. Essays in literary criticism are required during the same year. The elective study of the language and literature is pursued during the Junior year.

French and German are studied during the Sophomore, Junior and Senior years; and while the correct use and pronunciation of the spoken languages are taught, special stress is laid upon the ability to read with fluency the standard authors. The Seniors have frequent practice in German conversational exercises, and lectures on German literature.

Hebrew.—This language is taught as an extra study during the Senior year to those who desire it.

MATHEMATICS AND ASTRONOMY.

The required studies in Mathematics include Geometry, with problems and exercises in Geometrical invention; Algebra and Plane and Spherical Trigonometry, with their application to problems in Surveying and Astronomy, and Analytic Geometry. These are the mathematical studies of the first two years.

Those who wish to do so may elect in the Junior year the study of the Calculus and its applications.

Care is taken throughout that every principle receive a rigorous demonstration and that it be applied as far as is practicable. No principle is thoroughly learned by the student until he can apply it.

Elementary Astronomy is taught during the last term of the Junior year to students of the Classical and Engineering courses. The study of Theoretical and Practical Astronomy, with the use of the instruments of the Observatory, is elective in the Senior year. It is desirable that those who intend to take elective Astronomy should take the elective Mathematics of the Junior year, that they may be prepared for lectures in the more advanced part of the course.

The DANIEL S. SCHANCK OBSERVATORY of Rutgers College is well equipped for the work of practical instruction, being supplied with a six and one-half inch equatorial telescope, a meridian circle with four-inch object glass, a chronograph, a repeating circle, and other instruments. It is in telegraphic connection with other observatories.

The refined methods of measurement which the use of astronomical instruments requires, the discussion of results, and the determination of errors afford a means of mental training unsurpassed in value. Add to these the familiarity with spherical astronomy, and with the constellations which this study imparts, and the advantage gained is a strong recommendation of its pursuit.

The Observatory was designed and is used not only for independent work, but for the instruction of students in the theory and the use of astronomical instruments, and in practical observatory work. Unusual facilities are offered to students.

PHYSICS.

This subject is taught by lectures, and copious additions are made to the matter of the text-book. Each point is demonstrated as far as possible; and the relations of the subject to ordinary natural phenomena, the processes of the industrial arts, etc., are pointed out. Students are trained to distinguish carefully between the essential and the merely casual conditions of experiments, and to accustom themselves to infer from scientific data no more than is proved by them. The course

begins with Mechanics and proceeds to Heat, Electricity, Sound and Light.

The apparatus is well fitted to illustrate all principles, and such additions are made to it as the industrial applications of science demand.

NATURAL HISTORY.

The course in this department begins with the Freshman year, in which Physiology, Zoology, and Botany are taught. The several text-books are in all cases supplemented by illustrated lectures, and in the study of Botany by frequent field excursions for practical work in the analyzing and classification of botanical specimens. In the Junior and Senior years, these subjects are still further elaborated and studied in the sciences of Meteorology, Physical Geography, and Geology. The course of instruction is planned so as to bring these objects of every day observation to the continued attention of the student, to teach him the principles of classification and systematic study, and to show their important relations to the successful conduct of the practical affairs of life. The extensive collections of minerals, fossils, geological and botanical specimens, shells, birds, etc., are arranged for study in the Museum of Geological Hall.

CHEMISTRY.

INORGANIC CHEMISTRY is taught by Text-Book and Lectures. The subject is introduced by experimental lectures on the volume-composition of substances. Then follows a careful black-board drill on the writing of empirical and constitutional formulas of acids, bases and salts. The elements are next taken up in lectures, followed by recitations. In all cases the aim is to illustrate *every point* experimentally, thus giving the student ample experience in rigid experimental demonstration. The students are required to take full notes on the lectures, and sketches of the apparatus used in the experiments. These notes are afterwards copied and handed to the Professor for examination, criticism, and correction, thus training the student in accurate observation, and in facility and brevity of expression. During the year, Stoichiometry, the Mathematics of Chemistry, is taught by black-board exercises.

Organic Chemistry is taught by lectures and recitations. Beginning with the determination of the molecular weight of organic compounds, the student is led to examine the principles of substitution, valence and structure of organic compounds. Starting out from Methane, the various members of the Methane (mono-carbon) series are derived. When this series has been completed, the Ethane series is taken up and gone through with in the same manner. Then follow the Butane and Propane series, etc. At the end of each series a recapitulation of the typical reactions, and relations of each group is given.

The manner of treating the subject is substantially the same as that introduced by Prof. Hofmann of Berlin. As the various substances are considered, their relations to vegetable and animal life and to agriculture are pointed out. Attention is also given to their practical applications, as in food, medicines, dyeing, and in manufactures generally. The lectures are accompanied by full experimental illustrations.

Applied Chemistry.—The applications of Chemistry to the arts and manufactures are taught by lectures and text-book, Whenever it is practicable, the actual products are exhibited to the students, and the manufacturing processes reproduced in miniature. Attention is drawn to the scientific relations and connections between the various manufactures. The great losses by imperfect methods of manufacture and by waste-products are pointed out, and the student is taught to see the true economy of production. Illustrative of the lectures, visits are made to various manufacturing establishments, of which there are a number in and about New-Brunswick, and an opportunity is given to see manufacturing operations in actual working.

Analytical Chemistry.—In the Junior and Senior years students may elect a course in Analytical Chemistry with Laboratory Practice and Lectures. The experimental studies in this department have proved attractive and profitable to those intending to devote themselves to Law or Medicine, or to business pursuits, as well as to men who intend to teach or to pursue lines of work immediately connected with chemistry and its applications.

During the first term of the Junior year, *Blowpipe Analysis* is taught. The students, after learning the necessary manipulations of blowing glass, repeat the experiments in Nason's Blowpipe Analysis. When conversant with the various reactions, they proceed to actual analysis, or detection of substances by the blowpipe. Commencing with substances containing a few elements, they are in a short time able to analyze complex compounds. Lectures and recitations are held during the course.

The study of *Qualitative Analysis* is next taken up. Here, in a similar manner, the student learns the reactions, makes the tests, and proceeds rapidly from analysis of simple substances to the more complex. The method here followed of keeping notes of every step affords the student valuable practice in the three divisions of experimental science—Experiment, Observation, and Inference. The theory of analysis is explained in the lectures and recitations on the subject. *Quantitative Analysis* now follows. The student having learned the means of detecting the constituents of a substance, proceeds to the determination of their amount. Pure salts of known composition are analyzed at first, so that the results may be compared with the theoretical percentages. A sufficient degree of accuracy having been obtained, substances of unknown composition, as minerals, metals, ores, waters, urines, poisons, fertilizers, coals, etc., are analyzed. Having thus become thoroughly acquainted with the theory and practice of analytical chemistry, the student undertakes original experimental investigations in the various branches of pure and applied chemistry. Results obtained in investigations have been from time to time published in the scientific journals.

RHETORIC AND METAPHYSICS.

ELOCUTION.—During the Freshman year, lectures are delivered on the general principles of Elocution, and a practical application of these principles is made by appropriate exercises in Declamation, in which the members of the class are carefully drilled. In addition to this there are exercises in Oratory by all the students, both in the class-room and in the

College Chapel. The Freshman and Sophomore classes speak selected pieces, and the Juniors and Seniors are required to deliver original orations.

In the department of Rhetoric, begun during the Freshman year, an effort is made to teach the principles of Composition, not as laid down in mechanical rules, but as springing from psychological laws and relations. Ideas presented in accordance with various mental requirements and influences are shown to contain the true philosophy of rational and effective discourse. And illustrative references to the Masterpieces of Oratory, and to other forms of the best English Classical Literature are freely given. Essays are required throughout the entire course.

Mental Philosophy. — Porter's Elements of Intellectual Philosophy is employed as a text book during the first term and a part of the second term of the Junior year. The characteristic doctrines of the Distinctive Schools in Ancient and Modern Philosophy are presented in a course of Lectures upon the representative thinkers in these schools. Much attention is paid to the most important Philosophical and Metaphysical questions at issue among living speculators. And the results of recent critical discussions together with comments are interspersed with the daily recitations. The student is urged to become familiar with some of the works of Plato translated by Jowett, of Locke, Berkeley, Reid, Dugald Stewart, Thomas Brown, Hamilton, Coleridge, J. S. Mill, Herbert Spencer; and with the summaries of the systems of Kant, Fichte, Shelling, Hegel, and of others found in Ueberweg's History of Philosophy.

Logic is taught by a text-book, but special care is taken to enforce a practical application of logical formulas in the resolution of arguments, and the detection of sophistries. To this end illustrative examples are drawn from different authors and much oral instruction is given.

HISTORY, POLITICAL ECONOMY AND CONSTITUTIONAL LAW.

The scheme of studies in this department includes an outline sketch of Modern History, beginning with the downfall of

the Roman Empire and tracing the formation and growth of modern States; a view of the philosophy of history as given by Guizot; and a study of the leading principles of Political Economy, Constitutional Law (with special reference to the Constitutions of Great Britain and the United States) and International Law. Instruction is given by text-books, lectures and conversational discussions. The following, among others, are recommended to students as books of reference: Hallam, and Stubbs, on the English Constitution; the Federalist, Story, Kent, Jameson, Curtis, and Von Holst, on the Constitution of the United States; Kent, Woolsey, Wheaton and Phillimore, on International Law; Adam Smith (Roger's edition), Mill, Fawcett, Cairnes, and Carey, on Political Economy. These studies begin in the Sophomore year, and are continued during portions of the two following years.

Scientific Department.

RUTGERS SCIENTIFIC SCHOOL.

BY ACT OF THE LEGISLATURE CONSTITUTED THE STATE COLLEGE FOR THE PROMOTION OF AGRICULTURE AND THE MECHANIC ARTS.

BOARD OF VISITORS.

(APPOINTED BY THE GOVERNOR.)

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1. Conditions of Admission.

Every applicant for admission must be sixteen years of age, and must submit to the President proper testimonials of a good moral character. If an applicant for a State Scholarship, he must also present to the President a certificate of appointment from the County Superintendent.

Examinations for admission will be held on the same days as for the Classical Department, viz: on the Monday and Tuesday preceding Commencement, June 18th and 19th, beginning at 10 o'clock, A. M. on Monday, in the President's room. Applicants for admission may also be examined on Thursday, September 20th, at the same hour and place; but all students who can conveniently do so, are advised to be present in June.

Students may enter an advanced class either at the beginning of the College year or at other times, on condition that they sustain a satisfactory examination both on the preliminary studies and on those already passed over by the class which they propose to enter.

Provision is made for such students as wish to devote themselves to special subjects, if they are prepared to study profitably with the regular classes in those subjects.

The following are the subjects in which those desiring to enter the Freshman Class of the Scientific Department are examined. As they are all such as can be acquired in our best common schools, it is insisted that the preparation in them shall be thorough and complete. The general regulations as to conditions and their removal will be the same as those which apply to the classical course; and may be found on pages 14 and 15.

1. ARITHMETIC.—Fundamental Operations; Common and Decimal Fractions; Denominate Numbers, including the Metric System; Percentage, including Interest and Discount; Proportion; Extraction of the Square and Cube Roots.

2. ALGEBRA to Series; as much as is contained in Loomis' Treatise on Algebra, Wentworth's Complete Algebra, or Wells' University Algebra.

3. PLANE GEOMETRY. The *whole* of Plane Geometry will be required.

4. ENGLISH GRAMMAR—including Spelling.

5. DESCRIPTIVE GEOGRAPHY.

6. PHYSICAL GEOGRAPHY.

7. HISTORY OF THE UNITED STATES.*

[After 1883, such a knowledge of Elementary Physics and Chemistry as may be obtained from Peck's Ganot's Physics, or Wells' Natural Philosophy, and Valentine's Twenty Lessons in Chemistry, or Cooley's or Steele's Chemistry, will be required for admission.]

In preparing the student for this course, it is recommended that he be drilled thoroughly in Arithmetic, as a clear understanding of its simple elementary and practical principles is essential to a good Mathematician. His preparation in Algebra to Series should also be as complete. In addition to understanding the PRINCIPLES of the science he must fix them in his memory, and learn their bearing and utility, and for this reason he must pay great attention to the solution of practical examples. What is needed is ability to solve ordinary examples with facility and explain them thoroughly.

Attention is specially called to the Metric System of Weights and Measures, a practical knowledge of which is indispensable, since it is *used* in the class-room.

2. Courses of Study.

Four distinct courses of study are included in the schedule which follows:

I. A COURSE IN CIVIL ENGINEERING AND MECHANICS.

II. A COURSE IN CHEMISTRY AND AGRICULTURE.

III. A SPECIAL COURSE IN CHEMISTRY.

IV. A SPECIAL COURSE IN AGRICULTURE.

During the first year the studies of the two full courses are the same, and are designed to furnish a suitable introduction to the pursuit of the higher branches in either.

ENGINEERING COURSE.—During the last three years, the students in this course are instructed in Railroad Curves, Des-

* For particulars see page 18.

criptive Geometry, Analytic Geometry, Differential and Integral Calculus, Analytic Mechanics, Civil Engineering, Bridge-Building and Geodesy; and have daily practice in Draughting, with exercises and Problems in Geometrical Constructions, in Descriptive Geometry, Topographical, Mechanical and Architectural Drawing, and in Graphical Statics.

The course of study for the first year in this Department is arranged so as to be complete in itself. It is especially designed to meet the wants of those who cannot take the entire four years' course, but who desire to fit themselves as Land Surveyors. Students leaving at this period of the course, receive from the Faculty a certificate of their attainments.

CHEMICAL AND AGRICULTURAL COURSE.—During the last three years, the students in this course are instructed in General, Experimental, Theoretical, Organic and Applied Chemistry, Stoichiometry, Theory and Practice of Agriculture, Determinative Mineralogy, Blowpipe Analysis, and Analytical Chemistry, including the Analysis of Ores, Minerals, Coals, Waters, Technological Products, Soils, Fertilizers, Agricultural Products and Foods, Poisons, Urine and Animal Products. Instruction is also given in Spectrum Analysis and Microscopical Examination. The course of study depends to some extent upon the student's future pursuit in life.

The special courses in Chemistry and Agriculture occupy two years. In the remaining studies, the courses in Engineering, Chemistry and Agriculture are the same.

Partial Students are received, and allowed to take part in the above courses, provided their previous education is sufficient; and particular provision is made for them, especially in the Laboratory, in Mathematics, Surveying and Draughting.

SPECIAL PROVISION IS ALSO MADE FOR STUDENTS WHO DESIRE, AFTER COMPLETING THE REGULAR COURSE OF STUDY, TO TAKE POST-GRADUATE STUDIES.

In connection with the instruction in Agriculture in this Department, the Trustees maintain an extensive model farm, designed to illustrate the principles of agriculture, and also to test by experiment the value of different systems. It is under the charge of the Professor of Agriculture, and certain days during term time will be devoted to giving upon the

farm explanations of the experiments and their results, to the students of the Chemical and Agricultural courses, as well as to any farmers who may desire to avail themselves of this privilege.

MILITARY TACTICS.—In accordance with the requirements of the law, provision is made in this Department for the study of Military Tactics.

More extended information about the studies and courses in the Scientific School will be found in the Annual Report of the New Jersey State Scientific School, which will be sent to any address, on application.

3. Organization.

This department of the College has been designated by the Legislature of New Jersey, in accordance with the law of Congress,

THE STATE COLLEGE FOR THE PROMOTION OF AGRICULTURE AND THE MECHANIC ARTS.

Under this law, a certain number of students from the State of New Jersey are received into this department of the College, and educated free of expense for tuition. This law also provides for the appointment by the Governor of a Board of Visitors, two from each Congressional District, who possess general powers of supervision and control. The State pupils, when prepared to pass the required examinations, are admitted on the recommendation of the Superintendent of Schools in each county. These free scholarships are distributed among the counties in proportion to their population as follows:

STATE SCHOLARSHIPS.

ATLANTIC	1	MIDDLESEX	2
BERGEN	1	MONMOUTH	2
BURLINGTON	3	MORRIS	2
CAMDEN	2	OCEAN	1
CAPE MAY	1	PASSAIC	2
CUMBERLAND	1	SALEM	1
ESSEX	6	SOMERSET	1
GLOUCESTER	1	SUSSEX	1
HUDSON	6	UNION	2
HUNTERDON	1	WARREN	1
MERCER	2		
			40

Notice of examinations to be held in the several districts to fill vacancies which may exist in these Scholarships will be from time to time given by the State Superintendent of Education to the several County Superintendents.

COURSES OF STUDY.

Freshman Year.

Exercises during the year in Composition and Declamation.
Bible-Class Sabbath morning.

FIRST TERM.

1. FRENCH.
2. MATHEMATICS—Loomis' Algebra completed; Geometry.
3. NATURAL HISTORY—Dalton's Physiology; Lectures.
4. RHETORIC—Kellogg; Lectures.
5. DRAUGHTING—Practical Plane Geometry.
6. ENGLISH LITERATURE—Hales' Longer English Poems.

SECOND TERM.

1. FRENCH.
2. MATHEMATICS—Geometry completed, Trigonometry, Plane and Spherical, Loomis.
3. NATURAL PHILOSOPHY—Lectures.
4. ELOCUTION—Lectures.
5. ENGLISH LITERATURE—History of the English Language; Study of Words, Trench.
6. DRAUGHTING—Coloring, Topographical Signs, &c.

THIRD TERM.

1. FRENCH.
2. MATHEMATICS—Surveying, Murray.
3. NATURAL HISTORY—Gray's Botany; Lectures.
4. ENGLISH LITERATURE—English Authors and Manual.
5. DRAUGHTING—Mapping, with sections, &c.

Sophomore Year.

COURSE IN CIVIL ENGINEERING AND MECHANICS.

Exercises during the year in Composition and Declamation.
Bible-Class Sabbath morning.

FIRST TERM.

1. RAILROAD CURVES—Henck's Field Book.
2. DESCRIPTIVE GEOMETRY—Church.
3. CHEMISTRY—Barker; Lectures; Stoichiometry.
4. GERMAN.
5. HISTORY—Freeman's Outlines.
6. DRAUGHTING—Practical Geometry, Solid.
7. ESSAYS IN LITERARY CRITICISM.

SECOND TERM.

1. DESCRIPTIVE GEOMETRY—Church; Construction of Problems.
2. ANALYTIC GEOMETRY—Bowser.
3. CHEMISTRY—Barker; Lectures.
4. GERMAN.
5. HISTORY—Freeman's Outlines.
6. DRAUGHTING—Intersection of Surfaces, &c.
7. ESSAYS IN LITERARY CRITICISM.

THIRD TERM.

1. ANALYTIC GEOMETRY—Bowser, Completed.
2. SHADES, SHADOWS AND PERSPECTIVE—Church; Construction of Problems.
3. CHEMISTRY—Barker; Lectures.
4. GERMAN.
5. HISTORY—Creasy's Constitutional History of England.
6. DRAUGHTING—Linear Perspective, &c.
7. ESSAYS IN LITERARY CRITICISM.

Sophomore Year.

COURSE IN CHEMISTRY AND AGRICULTURE.

Exercises during the year in Composition and Declamation.
Bible-Class Sabbath morning.

FIRST TERM.

1. BLOWPIPE ANALYSIS—Nason.
2. QUALITATIVE ANALYSIS—Douglass and Prescott; Lectures; Laboratory Practice.
3. DESCRIPTIVE GEOMETRY—Church.

4. Chemistry—Barker; Lectures; Stoichiometry.
5. German.
6. History—Freeman's Outlines.
7. Draughting—Practical Geometry, Solid.
8. English Literature—Authors; Essays in Literary Criticism.

SECOND TERM.

1. Qualitative Analysis—Douglass and Prescott; Lectures; Laboratory Practice.
2. Descriptive Geometry—Church; Construction of Problems.
3. Chemistry—Barker; Lectures.
4. German.
5. History—Freeman's Outlines.
6. Draughting—Intersection of Surfaces, &c.
7. English Literature—Authors; Essays in Literary Criticism.

THIRD TERM.

1. Qualitative Analysis—Douglass and Prescott; Lectures; Laboratory Practice.
2. Shades, Shadows, and Perspective—Church; Construction of Problems.
3. Chemistry—Barker; Lectures.
4. German.
5. History—Creasy's Constitutional History of England.
6. Draughting—Linear Perspective, &c.
7. English Literature—Authors; Essays in Literary Criticism.

Junior Year.

Course in Civil Engineering and Mechanics.

Exercises during the year in Composition and Original Declamation.
Bible-Class Sabbath morning.

FIRST TERM.

1. Mental Philosophy—Porter's Elements of Intellectual Philosophy; Lectures.
2. Differential Calculus—Bowser.
3. Physics—Deschanel.
4. Political Economy—Bowen and Perry.
5. Draughting—Lettering, &c.

SECOND TERM.

1. German.
2. Differential Calculus—Completed; Integral Calculus—Bowser.

3. PHYSICS—Deschanel.
4. CONSTITUTIONAL HISTORY OF THE UNITED STATES—Text-book, Andrews; Lectures.
5. DRAUGHTING—Shading, &c.

THIRD TERM.

1. ENGLISH LITERATURE.
2. INTEGRAL CALCULUS—Completed.
3. ASTRONOMY—Newcomb and Holden.
4. HISTORY OF CIVILIZATION—Guizot.
5. DRAUGHTING—Construction.

Junior Year.

COURSE IN CHEMISTRY AND AGRICULTURE.

Exercises during the year in Composition and Original Declamation. Bible-Class Sabbath morning.

FIRST TERM.

1. MENTAL PHILOSOPHY—Porter's Elements of Intellectual Philosophy; Lectures.
2. ANALYTICAL CHEMISTRY—Quantitative Analysis, Fresenius, Cairns; Lectures; Laboratory Practice.
3. AGRICULTURE—Lectures at the Farm.
4. PHYSICS—Deschanel.
5. POLITICAL ECONOMY—Bowen and Perry.
6. DRAUGHTING—Lettering, &c.

SECOND TERM.

1. LOGIC.
2. ANALYTICAL CHEMISTRY—Quantitative Analysis, Fresenius, Cairns; Lectures; Laboratory Practice.
3. AGRICULTURE—Lectures.
4. PHYSICS—Deschanel.
5. CONSTITUTIONAL HISTORY OF THE UNITED STATES—Andrews; Lectures.
6. DRAUGHTING—Shading, &c.

THIRD TERM.

1. ENGLISH LITERATURE.
2. ANALYTICAL CHEMISTRY—Quantitative Analysis, Fresenius, Cairns; Lectures; Laboratory Practice.
3. AGRICULTURE—Vegetable Physiology.
4. HISTORY OF CIVILIZATION—Guizot.
5. MINERALOGY.
6. DRAUGHTING—Construction.

Senior Year.

COURSE IN CIVIL ENGINEERING AND MECHANICS.

Exercises during the year in Composition and Original Declamation. Bible-Class Sabbath morning.

FIRST TERM.

1. MECHANICS—Tate, or Wood.
2. ENGINEERING—Mahan.
3. ORGANIC CHEMISTRY—Pinner-Austen; Lectures.
4. MORAL PHILOSOPHY—Calderwood; Lectures.
5. PHYSICS—Deschanel.
6. DRAUGHTING—Machinery and Architecture.

SECOND TERM.

1. ENGINEERING—Mahan.
2. MECHANICS—Tate, or Wood; Bridge-Building, Wood.
3. ORGANIC CHEMISTRY—Pinner-Austin; Lectures.
4. MORAL PHILOSOPHY—Butler's Analogy.
5. PHYSICS—Deschanel.
6. GEOLOGY—the last four weeks of the term.
7. DRAUGHTING—Engineering.

THIRD TERM.

1. ENGINEERING—Bridge-Building and Railway Practice; Geodesy.
2. GEOLOGY—Lectures.
3. MORAL PHILOSOPHY—Butler's Analogy.
4. DRAUGHTING—Thesis.

Senior Year.

COURSE IN CHEMISTRY AND AGRICULTURE.

Exercises during the year in Composition and Original Declamation. Bible-Class Sabbath morning.

FIRST TERM.

1. APPLIED CHEMISTRY—Wagner; Lectures.
2. ORGANIC CHEMISTRY—Pinner-Austen; Lectures.
3. PRINCIPLES OF AGRICULTURE—Lectures.
4. ANALYTICAL CHEMISTRY—Quantitative Analysis, Fresenius, Cairns; Lectures; Laboratory Practice.
5. MORAL PHILOSOPHY—Calderwood's Handbook; Lectures.
6. PHYSICS—Deschanel.
7. DRAUGHTING.

SECOND TERM.

1. APPLIED CHEMISTRY—Wagner; Lectures.
2. AGRICULTURE—Its Methods and Products.
3. ORGANIC CHEMISTRY—Pinner-Austen; Lectures.
4. ANALYTICAL CHEMISTRY—Quantitative Analysis, Fresenius, Cairns; Lectures; Laboratory Practice.
5. MORAL PHILOSOPHY—Butler's Analogy.
6. PHYSICS—Deschanel.
7. DRAUGHTING.
8. GEOLOGY—last four weeks of the Term.

THIRD TERM.

1. AGRICULTURE—Animal Physiology; Care and Management of Domestic Animals.
2. GEOLOGY—Lectures.
3. MORAL PHILOSOPHY—Butler's Analogy.
4. CHEMICAL INVESTIGATIONS.
5. DRAUGHTING.
6. THESIS.

Special Course in Chemistry.

FIRST YEAR.

FIRST TERM.—1. Inorganic Chemistry. 2. Stoichiometry. 3. Blowpipe Analysis. 4. Qualitative Analysis. 5. French. 6. Physics. 7. Thesis.

SECOND TERM.—1. Inorganic Chemistry. 2. Qualitative Analysis. 3. Physics. 4. French. 5. Thesis.

THIRD TERM.—1. Inorganic Chemistry. 2. Qualitative Analysis. 3. French. 4. Thesis.

Journal of Travel or Observation.

SECOND YEAR.

FIRST TERM.—1. Organic Chemistry. 2. Quantitative Analysis. 3. Stoichiometry. 4. Applied Chemistry. 5. Physics. 6. German. 7. Thesis.

SECOND TERM.—1. Organic Chemistry. 2. Quantitative Analysis. 3. Applied Chemistry. 4. Physics. 5. German. 6. Thesis.

THIRD TERM.—1. Geology. 2. Applied Chemistry. 3. Mineralogy. 4. German.

Special Course in Agriculture.

FIRST YEAR.

First Term.—1. Algebra. 2. Geometrical Problems. 3. Inorganic Chemistry. 4. Physiology and Zoology. 5. Analytical Chemistry.

Second Term.—1. Geometry. 2. Coloring and Topographical Drawing. 3. Analytical Chemistry. 4. Book-Keeping.

Third Term.—1. Trigonometry. 2. Mapping. 3. Analytical Chemistry. 4. Botany. 5. Farm Accounts. 6. Mineralogy.

SECOND YEAR.

First Term.—1. Surveying. 2. Projections. 3. Physics. 4. Study of Domestic Animals. 5. Systematic Agriculture. 6. Analytical Chemistry.

Second Term.—1. Navigation and Nautical Astronomy. 2. Architectural Drawing. 3. Physics. 4. Geology. 5. How Crops Grow.

Third Term.—1. Levelling and Road Making. 2. Machine Drawing. 3. Meteorology. 4. Botany. 5. How Crops Feed.

Composition and Declamation throughout the whole course.

The hours of lectures or recitations are four each day, besides work in the Chemical Laboratory.

Students who pass their regular examinations in the above subjects, will, at the close of their course, receive certificates of their attainments. And at the end of two or more years further, if they shall have pursued practical agriculture on a farm, and shall then pass satisfactory examinations in prescribed subjects on Agricultural principles and practice before a Board of Examiners of the Scientific School, they shall receive Diplomas in Agriculture.

Examinations.

The classes in both departments are examined at the close of each term. These examinations are partly oral and partly written, and have an important bearing upon the standing of the student in his class.

Unexpected examinations at irregular intervals are to be held hereafter at the discretion of each instructor. The object of these examinations is to cultivate the habit of considering the relations of each day's work to what has been done before, and to stimulate efforts on the part of each student to gain a comprehensive knowledge of the subjects studied. Until this system has become more familiar to the students of the College, the mark given at such examination will have the same value as one daily recitation in that subject.

At the end of the first and third terms, the examinations of the classes of the Scientific section are held in the presence of the Board of Visitors, who then make their semi-annual visits to the Institution.

At the end of the third term, each member of the Graduating Class of the Scientific Section is required to present a thesis on some scientific subject, a copy of which is to be written out upon paper suitable for binding, and deposited in the College Library.

The final examination of the Graduating Classes is held four weeks before Commencement, from which time they are subject to such duties as are required for their preparation for Commencement.

Graduation.

To all members of the Graduating Class of the Classical Department, in full standing, the Trustees grant diplomas conferring the Academic degree of Bachelor of Arts.

To all members of the Graduating Class of the Scientific Department, in full standing, the Trustees grant diplomas conferring the Academic degree of Bachelor of Science.

To all members of the Graduating Class, in either Department, who have satisfactorily pursued special courses of study, a certificate is granted stating the studies pursued and the attainments made.

To those students who have pursued satisfactorily the studies of the first two years of the Scientific Course, and who desire to leave at that time, a special certificate is granted by the Faculty.

The following regulations have been adopted by the Board of Trustees in regard to the graduating exercises at Commencement:

1. The privilege of speaking at Commencement shall be open without distinction to the Classical and Scientific Sections of the Graduating Class.

2. The graduating honors shall be as follows:

FIRST HONOR—Latin Salutatory.
SECOND HONOR—English Salutatory.
THIRD HONOR—Philosophical Oration.
FOURTH HONOR—Scientific Oration.

If the first honor be awarded to a member of the Scientific Section of the Graduating Class, he shall deliver a German Salutatory.

3. The *Valedictory* shall be regarded as a *rhetorical honor only*, and shall be awarded to the best writer and speaker in his class (to be determined by his grade in composition and elocution during the Junior and Senior years), provided that he must have been a member of his class for two years, and have a general grade in scholarship among the best two-thirds.

4. Eleven other speakers shall be chosen, of whom six shall be chosen by grade in scholarship, provided, that in their grade in composition and elocution during their Junior and Senior years they be among the best two-thirds; and five shall be chosen by grade in composition and elocution during their Junior and Senior years, provided, that in their general grade in scholarship they be among the best two-thirds.

DEGREES AND POST-GRADUATE STUDIES.

Bachelors of Art and Bachelors of Science shall be entitled on application to receive three years after graduation the degrees of A. M. and M. S. respectively, on one of the following conditions:

1. On presenting a certificate of graduation from a Theological Seminary, Law School, or Medical College, or a certificate of admission to the practice of Law or Medicine.
2. On presenting evidence of other intellectual progress satisfactory to the Faculty.
3. On passing an examination before a committee of the Faculty on a prescribed course of study, and presenting a thesis to be approved by the Faculty.

The degrees of Ph.D. and D.Sc. will be conferred upon resident graduates of the College who shall pursue for two years prescribed courses of study under the direction of the Faculty.

The conditions will be made known on application.

Regulations.

Morning prayers are attended in the College Chapel each morning, except Saturday and Sunday, at 8.40 o'clock.

The recitation hours extend from 9 o'clock, A. M., to 1 o'clock, P. M., during five days of the week.

A Bible-Class is held Sabbath morning in the College

Chapel at 9.30 o'clock. All students are required to attend it.

A sermon is preached every Sabbath morning in the College Chapel at 10.30 o'clock. Students are required to be present. They are expected, also, to attend public worship in the afternoon or evening, at such place as their parents or guardians may direct.

No student is allowed to leave the city during term time without permission from his Division Officer.

Recitations are marked on a scale of 100, and the average standing of each student is made up at the end of each term, and sent to his parent or guardian. A mark at examination counts as much as one-third of the term's work up to the time of examination.

If the grade of a student in any term falls below 60 per centum of the maximum in one of his studies, he is conditioned in that study, and must be re-examined therein.

If the general average of any student in any term falls below 60 per centum of the maximum grade, his case must be acted on as the Faculty shall deem necessary.

If any student's grade in any term falls below 60 per centum of the maximum in all his studies, he loses his standing in his class, and is required to fall back a year in the course. If his work is not satisfactory after a month's trial here, he is dismissed from College.

If any student is found to be notably deficient in his daily recitations, or at the examination in any of his studies, his case is reported to the Faculty, and such action by way of discipline is taken as may be deemed necessary.

No student can be promoted to an advanced class until all his deficiencies are made up; and if he fails to make up all his deficiencies before the opening of the College year, he is required to go back a year in his course. Examinations for making up such deficiencies are held on the day preceding the opening of College, in September.

It is especially requested that no young man come or be sent to Rutgers College who does not have the definite wish and manly purpose to make the most of his time and his opportunities for improvement.

College Expenses.

FEES.

Tuition, per annum	$75 00
Incidentals—Janitor, Fuel, &c., per annum	8 00
Reading Room, per annum	2 00
Admission Fee	5 00
Graduation Fee	7 50
Analytical Chemistry, extra, per term	15 00

Damages are in all cases chargeable to the persons committing them.

Of the above expenses, the admission fees are payable, on entrance, to the College Treasurer; the incidental expenses are payable at the beginning of the first term, in September; of the tuition fees one-third, viz., $25, is payable within ten days after the beginning of each term. All checks should be made payable to the Treasurer of Rutgers College.

Students in Analytical Chemistry are charged $15 additional per term, for chemicals and use of the Laboratory, which amount must be paid within ten days after the beginning of the term. They are also expected to provide themselves, at their own expense, with the necessary sets of apparatus, which may be obtained from the regular apparatus dealers, or from the Laboratory Supplies department. These sets are retained through the year, but at the end of it if the owners do not wish to keep them, they will be purchased at a fair price. If proper care has been exercised, a small discount only (about 10 per cent.) from the original cost will be made. All breakage will be charged in full.

BOARD.

Board, with furnished rooms, can be obtained in New Brunswick at the present time for $4 to $7 per week; board without rooms for $3 to $5 per week. These prices do not include lights or fuel—which cost from $3 to $5 per term. Students having the ministry in view may obtain rooms in

Hertzog Hall, in the Theological Seminary, free of charge. The rooms are heated and lighted.

The Faculty are empowered to pass such regulations relative to the number of boarders in each house as they think proper; and students shall board only at such places as are approved by them.

By combining in clubs, students are able to reduce somewhat their expense for board.

Free scholarships and pecuniary assistance may be given to young men of approved character and ability. No deserving student who has shown perseverance and capacity is allowed to give up his course for lack of assistance.

Beneficiary Aid.

1. Van Benschoten Fund.

This fund, the gift of the Rev. Elias Van Benschoten, in 1814, amounting to $20,813, was given in trust jointly to the General Synod of the Reformed Church and the Trustees of Rutgers College, to aid in the education of indigent students for the ministry. The students who enjoy the benefits of this fund are appointed by the Trustees of the College on the nomination of the General Synod of the Reformed Church, and receive $150 annually.

2. Knox Fund.

This fund, consisting of $2,000, was given by Mrs. Rebecca Knox, of Philadelphia, in 1815, to the Trustees of Rutgers College, the income from it to be expended for the support of one student in the Theological Seminary.

3. W. P. Smock Fund.

William P. Smock, of Marlboro, N. J., left by his will, to the Trustees of Rutgers College, the sum of $500, to be invested as a fund, the interest of which should be used to aid in the education of young men for the ministry. This legacy was received in 1859, and has been since that time duly employed for the purpose indicated.

4. Mandeville Fund.

In 1865 the Trustees of Rutgers College received from the executor of the will of William Mandeville, of New York City, the sum of $2,000; said sum to be invested, and the income thereof to be applied to the support of a theological student in the College.

5. Voorhees Fund.

Abraham Voorhees, of Franklin Park, N. J., bequeathed by his will, $26,000 to the Trustees of Rutgers College, the income of which is to be expended in aiding worthy young men who are candidates for the ministry, while pursuing their studies in Rutgers College. A grant of $200 per annum is made to the students thus receiving aid.

6. State Scholarships.

The law of the State of New Jersey granting to the Scientific Department of Rutgers College the Agricultural College Endowment, provides for the education of forty State students free of expense for tuition. These scholarships are distributed among the counties in proportion to their population, and the appointments to fill vacancies are made by the County Superintendents. The appointment gives the *right* to a course of instruction of four years in the Rutgers Scientific School.

7. Board of Education.

The Board of Education of the Reformed Church grants aid to young men preparing for the ministry in the denomina-

tion. The conditions are that the persons receiving aid shall have been members of some Evangelical Church one year, and at the time members of some Reformed Church. The aid may be obtained either while in College, or in the Theological Seminary.

At present the amount is $150 per annum. Information may be given by Rev. John L. See, D. D., 34 Vesey Street, New York.

8. Rooms for Students.

Such rooms in Peter Hertzog Hall as may not be required for the use of the students of the Theological Seminary, are allowed to be occupied by the students of the College and Grammar School who have the ministry in view, and on the same conditions as the members of the Theological Seminary, *i. e.*, free of charge.

Prizes and Honors.

All prizes and honors are open equally to members of the Classical and Scientific Departments, except in cases where prizes are specifically limited to one department by the donor. Each competitor for a prize must sign a written declaration that the essay or other work offered by him is his original and unaided work.* They are as follows:

1. Suydam Prize for Composition.

This prize, the gift of James Suydam, Esq., is a gold medal of the value of thirty dollars, or that sum of money, and is to be given to the member of the Senior Class who shall write the best English Composition on the subject assigned to the

* The names of Examining Committees will be published in next year's Catalogue, after the Prizes shall have been awarded.

class by the Professor of Rhetoric. Competitors must hand in their compositions on or before April 18th. The student to whom the prize is awarded must copy his composition upon paper furnished by the College, and present it for preservation in the Library before he can receive the prize.

Subject for 1882: "The Scottish School of Philosophy: Its Founders, Characteristics and Influence."

2. Suydam Prize in Natural Science.

This prize, the gift of James Suydam, Esq., is a gold medal of the value of thirty dollars, or that sum in money, and is to be awarded to the member of the Senior Class who shall have made the greatest attainments in Natural Science. The examination is upon all the subjects of Natural Science in the College course, and is conducted by the Professors in those subjects. The questions and answers are required to be written.

3. Brodhead Classical Prize.

This prize is the gift of Rev. Dr. Jacob Brodhead and his son, J. Romeyn Brodhead, LL.D. It is the interest on $500, *i. e.*, thirty dollars, to be given to the best Senior Classical scholar on the following conditions:

First, "That those who offer themselves as candidates for it shall be subjected to a special examination, at a time to be fixed by the Faculty near to the close of the Senior year."

Second, "That the subject of the examination be a passage or play of some Classical author (not included in the College programme of Studies), to be selected by the Classical Professors, and to be announced at least one month before the time fixed for the examination."

Third, "A subject for an essay shall be announced at the same time, and the essay shall be given in on the day of examination."

Fourth, "Both the examination and the essay shall be taken into account in the adjudication of the prize. A law copy of the essay of the Prize man shall be handed in by him before the medal is put into his hands, to be preserved among the archives of the College."

Subject for examination for 1883: "Cicero's De Natura Deorum."

Subject for essay: "Cicero's Ideas of the Supernatural."

4. Bradley Mathematical Prize.

This prize is given by Hon. Joseph P. Bradley, LL.D., and consists of a valuable Mathematical work, which is to be bestowed on the student of the Senior Class who shall present the best solution of a set of Mathematical problems to be proposed to the class by the Professor of Mathematics before the close of the second term.

5. Myron W. Smith Prizes.

These prizes were founded by Lyndon A. Smith, M. D., of Newark, in the name of his son, Adjutant Myron W. Smith, who was a graduate of the College, and who gave his life in the late war to the cause of his country. They consist of the interest of $500, proportionately appropriated to two medals, one of gold and the other of silver, which are to be awarded respectively to the best and second best speakers of the Sophomore Class. Only those students who shall have pursued, in the College, the regular studies of the classical or a full scientific course from the beginning of the Freshman year, shall be allowed to contend for these prizes.

The competition for these medals shall take place before the Faculty, when the best and second best speakers shall be selected, to whom the medals shall be awarded, and six others shall receive honorable mention in their order of excellence. The medals shall be presented at Commencement.

6. Tunis Quick Prize in Spelling and English Grammar.

This prize, the gift of P. Vanderbilt Spader, Esq., of New Brunswick, is the income of $300, at 6 per centum, and is to be presented to that member of the Freshman Class, Classical or Scientific, who shall pass the best examination in Spelling and English Grammar.

The examination is to be conducted in writing by the Professor of English Literature, at as early a day as convenient in the second College term, and under such regulations as the Faculty may from time to time establish.

The prize may be withheld from any or all papers offered, either for want of merit or for failure of proper competition. In case the prize be not awarded in any year, it is to be offered one year later to the members of the same class, on the same conditions as at first.

All regulations as to time, manner and conditions of awarding the prize are subject to change by the Board of Trustees.

7. Peter Spader Prizes in Modern History.

These prizes, the gift of P. Vanderbilt Spader, Esq., are two in number, the income of $400 and $300, respectively, at 6 per centum, and are to be awarded to those members of the Sophomore Class, Classical or Scientific, who shall present the best essays on some subject in Modern History, selected by the Professor of History, with the approval of the Faculty.

The subject is to be announced at the close of the Freshman year, and the competing essays are to be handed in on or before the third Monday in the third term of the Sophomore year.

The committee annually appointed by the Faculty may decline to award these prizes, or either of them, for want of merit in the essays, or for failure of proper competition. In case the prizes be not awarded in any year, they are to be offered one year later to the members of the same class, on the same conditions as at first.

Successful essays are to be copied on paper selected by the Faculty, and deposited in the College Library, before the writer receives his prize.

All regulations as to time, manner, and conditions of awarding the prizes are subject to change by the Board of Trustees.

Subject for 1883: The Spaniards in North and South America.

8. Appleton Memorial Prize in Moral Philosophy.

This prize was founded by a gift of $500, from Rev. Samuel E. Appleton in the name of his mother, Mrs. Elizabeth Appleton. It consists of $30, the interest of the above sum, and will be given "to the member of the Senior Class who shall pass the best examination in Moral Philosophy." The examination for this year will be before a committee, and will be both oral and written.

9. William Wilson Prize in Mental Philosophy.

This prize consists of $25, given by Rev. F. F. Wilson, and Rev. P. Q. Wilson, in honor of their father, Captain William Wilson, of the New Jersey State Militia. It will be open to competition for students in both the Classical and Scientific Sections who are pursuing the study of Mental Philosophy, and will be bestowed on the one who shall pass the best examination on some work assigned by the Professor of Metaphysics.

Work for 1883: "Berkeley's Principles of Knowledge, Dr. Krauth's Edition, pp. 72–122, and 193–281."

10. Wm. H. Van Doren Prize for the best Essay on Christian Missions.

This prize consists of $20, the gift of Rev. William H. Van Doren, D.D. It is open to competition for members of the Senior and Junior classes in both Sections; and for members of the Theological Seminary.

11. Junior Exhibition.

Eight members of the Junior Class are chosen each year, in equal numbers from the Peithessophian and Philoclean Literary Societies, who deliver original speeches at an exhibition held on the Tuesday evening preceding Commencement. The selection is made by a committee of three persons, of whom one is chosen by each Society, and a third by the Faculty, and is based upon relative excellence as writers and speakers.

12. Junior Orator Prize.

A prize of $25, the gift of Major M. H. Bright, A.M., will be awarded to the Junior orator whose elocution and composition shall be adjudged best by a committee appointed by the Faculty.

13. Hart Prize in English Literature.

A prize of $25 is open to the members of the Sophomore Class, for the best essay upon a subject in Literature, assigned by the Professor of that department, and awarded by a committee appointed by him.

Subject for 1883: Hawthorne.

Library and Museum.

1. Library.

The Library of the College is open for consultation during each term, as follows: on Mondays, Tuesdays, Wednesdays, and Thursdays, from 12 M. to 12.30 P. M., and from 2 P. M. to 4.30 P. M.; on Saturdays from 9 A. M. to 12 M. Students are allowed free access to the books, and are encouraged to become familiar with the proper methods of using a library for literary work. The collection of books, although entirely inadequate to the wants of the institution, is yet of great value. It has received considerable additions during the past few years, and no effort will be spared to make it what the Institution requires. Donations to this object, either in money or books, are earnestly solicited.

By the gift of a permanent fund of $1,000 from James Suydam, Esq., the Library is supplied with the leading learned periodical publications in the various departments.

2. Museum and Apparatus.

The Trustees solicit contributions from the friends of the College to the collections of the Museum. It is their wish to increase greatly the present valuable collections by additions in all departments. Donations of specimens illustrating Geology, Mineralogy, Natural History, Coins, Curiosities, and Antiquities, and the Industrial Arts, are earnestly requested. Ample rooms are provided in the new Geological Hall for the proper preservation and display of such specimens. By the kindness of numerous friends, suitable cases have been provided to receive the collections which the College already possesses, and they are now being arranged as rapidly as circumstances will allow. The Museum is open at stated times during each term.

The apparatus of the College for illustrating the various branches of Science, is extensive and serviceable. It has been obtained as the wants of the classes demanded, and comprises most of the recent additions to Chemical and Philosophical apparatus. The students in Analytical Chemistry are provided with the requisite facilities for making analyses. The arrangements for these departments in the building recently erected are of the most ample and convenient description.

Inauguration of President Gates.

The exercises held June 20th, 1882, at the Inauguration of Merrill Edwards Gates, Ph.D., LL.D., as President of the College, were attended by a larger number of Alumni and friends than ever before assembled in the history of the Institution. The Programme was as follows:

I. Collation in the Armory of Geological Hall at 1 P. M.

II. The Procession formed at 8.15 P. M. on the Campus, and proceeded to the Masonic Hall.

III. Exercises in the Hall.

1. Invocation by Rev. William J. R. Taylor, D.D.
2. Singing by Rutgers College Glee Club.
3. Address by his Excellency, George C. Ludlow, Governor of New Jersey, and President of the Board of Trustees.
4. Address and Delivery of the Keys of the College by the retiring President, Wm. H. Campbell, D.D.
5. Address of Welcome in behalf of the Faculty, by Prof. T. S. Doolittle, D.D.
6. Address of Welcome in behalf of the Students, by John Morrison, of the Senior Class.
7. Address of Welcome in behalf of the Alumni, by Hon. Jonathan Dixon, LL.D.
8. Singing, by Rutgers College Glee Club.
9. Inaugural Address by the President, Merrill Edwards Gates, Ph.D., LL.D.*
10. Singing, by Rutgers College Glee Club.
11. Benediction, by Rev. Gustavus Abeel, D.D.

Hon. John Hopper, *Grand Marshal.*
Lieut. S. N. Holmes, *Assist. Marshal.*

W. H. Campbell,
P. D. Van Cleef,
Johnson Letson,
} *Committee of Trustees.*

* A Pamphlet containing the Addresses will be sent to any one after Feb. 1st, 1883, upon application to the Secretary of the Faculty.

Register.

1. Sophomore Orators.

W. C. LUDLOW, 1st Prize.....New Brunswick.
M. L. BRUCE, 2d Prize,.....Andes, N. Y.
The following are named in the order of their appointment, according to merit:
B. E. DICKHAUT,.....East New York, N. Y.
W. P. BRUCE, } Andes, N. Y.
F. V. ROGERS, } Davenport, Iowa.
P. CRISPELL, } Hurley, N. Y.
J. A. VAN NEST, } New Brunswick.
G. DAVIS,.....White House.

2. Junior Exhibition.

ORATORS FOR 1882.

Philoclean Society.	*Peithessophian Society.*
FRED. W. CUTLER,.....Morristown.	G. M. LILBURN, Haverstraw, N.Y.
WM. C. MILLER,.....Albany, N. Y.	H. MORTIMER PETERS....Newark.
JOHN L. SCHENCK,.....Neshanic.	J. W. SCUDDER...Brooklyn, N. Y.
	H. J. WARD....Middleville, N. Y.

3. Graduating Exercises, June 21, 1882.

HONORS.

J. MORRISON, Fishkill-on-Hud'n, N.Y., *Latin Salutatory*,.....First Honor.
CHARLES D. EDGAR, New Brunswick.. *English Salutatory*,..Second Honor.
D. W. SKELLENGER, Chester,.....*Philosophical Oration*,.Third Honor.
P. H. BEVIER, Gardiner, N. Y., ...*Scientific Oration*,....Fourth Honor.
J. MORRISON, Fishkill-on-Hud'n, N.Y., *Valedictory Oration*,..Rhet'l Honor.

ORATIONS.

J. B. ALDEN...Hoosick Falls, N. Y. H. M. LANSING..Brooklyn, N. Y.
J. C. CHAMBERLAIN.New Brunsw'k. S. LEFEVRE.....New Paltz, N. Y.
W. I. CHAMBERLAIN.Millbr'k, N.Y. E. O. MOFFETT.....Metuchen.
J. H. GILLESPIE,.....Jersey City. J. A. NORRIS.Shavertown, N. Y.
A. B. HAVENS,.....Jersey City. J. P. PHILIP,.....Catskill, N. Y.
G. H. JOHNSON,....New Brunswick.

SEAMAN MILLER, Esq., Linlithgo, N. Y.—Master's Oration.

4. Prizes Awarded.

GENERAL PRIZES.

Knickerbocker Prize for Original Research,.....G. H. JOHNSON.
Van Doren Prize for Essay on Missions,.....D. W. SKELLENGER.

SENIOR PRIZES.

Brodhead Prize for Classics,.....J. H. GILLESPIE.
Suydam Prize for Natural Science,.....P. H. BEVIER.
Suydam Prize for Composition,.....JOHN MORRISON.
Bradley Prize for Mathematics,.....F. W. BENNETT.
Appleton Prize for Moral Philosophy,.....J. B. ALDEN.
Bowser Prize for Best Thesis,.....G. H. JOHNSON.
Prize for Best Solution of Examples in Bowser's Calculus,
G. H. JOHNSON.

JUNIOR PRIZES.

Wilson Prize for Mental Philosophy,.....GEORGE Z. COLLIER.
Bright Junior Orator Prize,.....JOHN L. SCHENCK.

SOPHOMORE PRIZES.

Peter Spader Prize for Modern History (1st),.....M. LINN BRUCE.
Peter Spader Prize for Modern History (2d),.....J. A. VAN NEST.
Hart English Literature Prize,.....M. LINN BRUCE.
Myron W. Smith Prize for Declamation (1st),.....W. G. LUDLOW.
Myron W. Smith Prize for Declamation (2d),.....M. LINN BRUCE.

FRESHMAN PRIZE.

Quick Prize for Grammar and Spelling,.....FRANK VAN BRAKLE.

5. Class Day Exercises.

IN THE CHAPEL.

ORATION,.....RYNIER J. WORTENDYKE,.....Jersey City.
POEM,.....EDWIN O. MOFFETT,.....Metuchen.
CLASS HISTORY,.....IRVING BURDICK,.....Brooklyn, N. Y.
CLASS PROPHECY,.....H. M. LANSING,.....Brooklyn, N. Y.
PRESENTATION OF CLASS MEMENTOES,..A. B. HAVENS,.....Jersey City.
ADDRESS TO UNDERGRADUATES,..J. MORRISON,..Fishkill-on-Hud'n, N. Y.

ON THE CAMPUS.

PLANTING OF THE IVY,.....N. B. K. HOFFMAN,.....Readington.
ORATION,.....J. HOVER,.....New Brunswick.
PIPE ORATION,.....M. T. SCUDDER,..... Upper Red Hook.
ADDRESS TO THE PRESIDENT,.J. H. GILLESPIE,.....Jersey City, N. J.

6. Alumni Association.

OFFICERS FOR THE YEAR 1882-83.

REV. T. B. ROMEYN, D.D., - - - - - - - - President.
REV. S. W. MILLS, D.D., - - }
JOHN P. GARRISH, M.D., - - } Vice Presidents.
JOHN V. SCHENCK, M.D., - - }
PROF. I. E. HASBROUCK, - - - Treasurer.
REV. JOHN L. SEE, D.D., - - Secretary.
REV. T. S. DOOLITTLE, D.D., - - Biographer.
RUSH VAN DYKE, M.D.,* - - Chairman of Standing Com.

ORATOR FOR 1883:

REV. GOYN TALMAGE, D.D.,.....Primarius.
REV. JOHN KNOX ALLEN,..... Secundus.

VEDDER LECTURER.

For 1883—REV. JOHN B. DRURY, D.D.,.....Ghent, N. Y.
For 1884—REV. CORNELIUS VAN SANTVOORD, D.D.,....Kingston, N. Y.

* Deceased.

Former students of the College, whether graduates or not, are earnestly requested to keep the College informed of any change in their address or occupation, of works published, offices held, &c., both to facilitate the sending of the annual catalogue, and to furnish material for general catalogues, when printed. Catalogues of the College, etc., will be sent to any alumni or friends of the College who send to the Secretary their addresses, for this purpose.

It is now proposed to issue the new edition of the general catalogue as soon as sufficient and reliable data can be obtained.

It is desired to secure for the Library a complete set of all the publications issued by the College or relating to it, or written or compiled by any one in connection with it, whether periodical or occasional. A complete collection of *Rutgersensia* would be of great value to the College and its friends.

Rutgers Grammar School.

This School, which is under the control of the Board of Trustees and in intimate relation with the College, affords excellent facilities for preparing boys to enter the Classical and Scientific departments of the College. Special care is taken to drill the pupils thoroughly in the principles of Mathematics, the Languages, Natural Sciences and kindred subjects. Its work, however, is not restricted to candidates for College. It has courses of study adapted to fit young men for business life, or to give them a general education as good as the best Academies offer. Exceptional attention will be paid to everything that may increase the efficiency and usefulness of this institution. The friends of the College, who have sons or wards to educate, will do well to examine carefully into its merits. Full information will be given upon application to the Rector.

The Necrology, which has for some years been published in the Catalogue, is omitted, as matter that belongs more appropriately to the Alumni Association.

Gifts of Books during the past year, from the following sources, to the College Library, are gratefully acknowledged:

Rev. W. H. Campbell, D.D., LL.D.
Rev. T. W. Chambers, D.D., Class of 1834.
William Clark, Esq.
His Excellency, George C. Ludlow, Class of 1850.
The Smithsonian Institution, Washington, D. C.
The Department of State, Washington, D. C.
The Department of the Interior, Washington, D. C.
The Department of Agriculture, Washington, D. C.
The Treasury Department, Washington, D. C.
The Coast Survey, Washington, D. C.
The U. S. Naval Observatory, Washington, D. C.
The Bureau of Education, Washington, D. C.
The Bureau of Engineers, U. S. A.
The U. S. Naval Academy, Washington, D. C.
The Patent Office, Washington, D. C.
The American Institute Mining Engineers, Washington, D. C.
The Weekly Witness.
The Hackensack Republican.
Brig.-Gen. S. V. Bevet, Chief of Ordnance U. S. A.
S. D. V. Burr, Class of 1875.
Prof. George H. Cook, LL.D.
Prof. George W. Atherton.
Prof. John C. Smock, Class of 1862.
The Massachusetts Board of Health.
The N. Y. Academy of Sciences.
The Ohio Mechanics Institute.
The Wisconsin Academy of Sciences.
The N. Y. Produce Exchange.
Rev. Isaac M. See, Class of 1849.
The Musical Record, Boston, Mass.
Alex. Johnston, Class of 1869.
C. D. Deshler, Esq.
H. R. Baldwin, M. D., Class of 1849.
W. P. Watson, M. D., Class of 1874.

J. H. Ackerman, Class of 1874.
Rev. W. E. Griffis, Class of 1869.
Rev. C. H. Pool, Class of 1863.
P. Vanderbilt Spader, Esq., Class of 1849.
N. Y. Meteorological Observatory.
H. D. B. Mulford, Class of 1881.
I. S. Upson, Class of 1881.
W. H. S. Demarest, Class of 1883.
Hon. J. T. Henderson, Commissioner of Agriculture, Georgia.
Rev. J. V. N. Talmage, D.D., Class of 1842.
The Ontario Agricultural College.
Hon. Miles Ross.
Hon. W. J. Sewell.
Charles Perrin Smith, Esq.
T. B. Booraem, Class of 1881.
C. T. Pomeroy, Class of 1877.
The National Association Wool Manufacturers.
And Others.

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Johnson Letson,
Committee of Trustees.

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CATALOGUE

OF THE

OFFICERS AND STUDENTS

OF

RUTGERS COLLEGE,

NEW BRUNSWICK, N. J.

1883-84.

FOUNDED A. D. 1770.

THE STUDIO PRESS,
59 COURTLANDT ST., NEW YORK.
1883.

FRANCIS CUYLER VAN DYCK, A.M.,

Professor of Physics and Experimental Mechanics.

EDWARD A. BOWSER, C.E., LL.D.,

Professor of Mathematics and Engineering.

ISAAC EDGAR HASBROUCK, A.M.,

Professor of Mathematics and Graphics.

GEORGE BENJAMIN MERRIMAN, A.M.,

Professor of Mathematics and Astronomy.

PETER TOWNSEND AUSTEN, PH.D., F.C.S.,

Professor of General and Applied Chemistry.

REV. CHARLES EDWARD HART, D.D.,

Professor of the English Language and Literature.

FRANCIS AUGUSTUS WILBER, M.S.,

Adjunct Professor of Analytical Chemistry.

AUSTIN SCOTT, PH.D.,

VOORHEES *Professor of History, Political Economy and Constitutional Law.*

FRANK LORING DODDS, 2d Lieutenant 9th U. S. Infantry,

Professor of Military Science and Tactics.

LOUIS BEVIER, PH.D.,

Instructor in French.

ISAAC EDGAR HASBROUCK, A.M.,

Librarian.

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CATALOGUE OF STUDENTS.

FOR THE YEAR BEGINNING SEPTEMBER 20, 1883.

GRADUATE STUDENTS.

Names.	*College.*	*Residences.*	*Rooms.*
ROBERT ADRAIN, History and Constitutional Law.	Rutgers,	New Brunswick,	George St.
HENRY W. BEEBE, History and Constitutional Law.	Rutgers,	New Brunswick,	117 Somerset St.
EVERT J. BLEKKINK, Metaphysics.	Hope,	Posterburg, Wis.,	37 Hertzog Hall.
THEODORE B. BOOKAEM, JR., History and Constitutional Law.	Rutgers,	New Brunswick,	54 Bayard St.
JOHN HENRY BRANDOW, Metaphysics.	Rutgers,	Coxsackie, N. Y.,	13 Hertzog Hall.
GEORGE Z. COLLIER, Metaphysics.	Rutgers,	New Brunswick,	71 Bayard St.
WM. H. STEELE DEMAREST, Metaphysics, History and Constitutional Law.	Rutgers,	New Brunswick,	Seminary Place.
JOHN LAUBENHEIMER, Metaphysics.	Rutgers,	Bergen Point,	20 Hertzog Hall.
WILLIAM C. MILLER, Physics.	Rutgers,	Albany, N. Y.,	69 Bayard St.
HERBERT V. PALMER,	Rutgers,	[illegible]	[illegible] Hall.

Since the Catalogue was printed, the following [illegible] have been made:

EDGAR S. SHUMWAY, A.M.,
[Founder and Editor of the Latin Magazine, 1882-83.]
Adjunct Professor of Latin.

JOHN S. VOORHEES, History and Constitutional Law.	Rutgers,	[illegible]	
FREDERICK WEIGEL, History and Constitutional Law.	Rutgers,	New Brunswick,	New Brunswick.
DAVID T. WILLIAMS, Metaphysics.	Adrian,	Adrian, Mich.,	New Brunswick.

G. C. CLARK, M.D.,*	New Brunswick.
HOWARD MCSHERRY, ESQ.,*	New Brunswick.
H. B. WILLIS, ESQ.,*	New Brunswick.

* Engaged in the practice of their profession, and pursuing special studies with the Graduate Class in History and Constitutional Law.

Names.	*Residences.*	*Date of Election.*
JAMES W. SCHERMERHORN, ESQ.,	New York City,	Feb. 7, 1871.
WILLIAM C. FOWLER, ESQ.,	Brooklyn, N. Y.,	April 13, 1871.
SAMUEL SLOAN, ESQ.,	New York City,	June 20, 1871.
HON. GEORGE C. LUDLOW,	New Brunswick,	June 17, 1873.
HON. WILLIAM A. NEWELL,	Olympia, W. T.,	June 17, 1873.
REV. ISAAC S. HARTLEY, D.D.,	Utica, N. Y.,	June 17, 1873.
*HON. THEODORE F. RANDOLPH,	Morristown,	March 31, 1874.
S. O. VANDERPOEL, M.D., LL.D.,	New York City,	June 22, 1875.
THEODORIC R. WESTBROOK, LL.D.,	Kingston, N. Y.,	Oct. 26, 1875.
REV. WILLIAM ORMISTON, D.D.,	New York City,	June 20, 1876.
REV. JOHN GASTON, D.D.,	Passaic,	June 20, 1876.
HENRY W. BOOKSTAVER, ESQ.,	New York City,	June 20, 1876.
ROBERT F. BALLANTINE, ESQ.,	Newark,	June 20, 1876.
REV. WILLIAM RANKIN DURYEE, D.D.,	Jersey City,	March 5, 1878.
REV. WILLIAM J. R. TAYLOR, D.D.,	Newark,	June 18, 1878.
REV. ABRAHAM R. VAN NEST, D.D.,	Philadelphia, Pa.,	Oct. 29, 1878.
JOHN LEFFERTS, ESQ.,	Flatbush, L. I.,	Oct. 29, 1878.
WILLIAM CLARK, ESQ.,	Newark,	Oct. 29, 1878.
HON. GEORGE H. SHARPE,	Kingston, N. Y.,	March 4, 1879.
DAVID BINGHAM, ESQ.,	East Orange,	March 7, 1882.
GEORGE C. CHURCHILL, ESQ.,	Utica, N. Y.,	June 19, 1883.
TUNIS G. BERGEN, PH.D.,	Brooklyn, N. Y.,	June 19, 1883.

REV. DAVID D. DEMAREST, D.D., ... New Brunswick.

Secretary of the Board.

JOHN C. ELMENDORF, ESQ., . . . New Brunswick.

Treasurer.

Office—39 Albany Street.

JAMES THOMAS, *Janitor.*

* Deceased, November 7, 1883.

FACULTY.

MERRILL EDWARDS GATES, PH.D., LL.D.,

PRESIDENT,

THEODORE FRELINGHUYSEN *Professor of Moral Philosophy.*

REV. WILLIAM HENRY CAMPBELL, D.D., LL.D.,

EX-PRESIDENT,

Professor of the Evidences of Christianity.

GEORGE H. COOK, LL.D.,

VICE-PRESIDENT,

Professor of Geology and Agriculture.

REV. DE WITT TEN BROECK REILEY, A.M.,

Professor of the Latin Language and Literature.

REV. T. SANDFORD DOOLITTLE, D.D.,

COLLEGIATE CHURCH *Professor of Rhetoric, Logic, and Mental Philosophy.*

REV. JACOB COOPER, D.D., D.C.L.,

Professor of the Greek Language and Literature.

JOHN CONOVER SMOCK, A.M.,

* *Professor of Mining and Metallurgy.*

REV. CARL MEYER, D.D.,

Professor of Modern Languages.

*The duties of this professorship are not at present discharged; the chair awaits endowment.

FRANCIS CUYLER VAN DYCK, A.M.,
Professor of Physics and Experimental Mechanics.

EDWARD A. BOWSER, C.E., LL.D.,
Professor of Mathematics and Engineering.

ISAAC EDGAR HASBROUCK, A.M.,
Professor of Mathematics and Graphics.

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GRADUATE STUDENTS.

Names.	*College.*	*Residences.*	*Rooms.*
ROBERT ADRAIN, History and Constitutional Law.	Rutgers,	New Brunswick,	George St.
HENRY W. BEEBE, History and Constitutional Law.	Rutgers,	New Brunswick,	117 Somerset St.
EVERT J. BLEKKINK, Metaphysics.	Hope,	Posterburg, Wis.,	37 Hertzog Hall.
THEODORE B. BOORAEM, JR., History and Constitutional Law.	Rutgers,	New Brunswick,	54 Bayard St.
JOHN HENRY BRANDOW, Metaphysics.	Rutgers,	Coxsackie, N. Y.,	13 Hertzog Hall.
GEORGE Z. COLLIER, Metaphysics.	Rutgers,	New Brunswick,	71 Bayard St.
WM. H. STEELE DEMAREST, Metaphysics, History and Constitutional Law.	Rutgers,	New Brunswick,	Seminary Place.
JOHN LAUBENHEIMER, Metaphysics.	Rutgers,	Bergen Point,	20 Hertzog Hall.
WILLIAM C. MILLER, Physics.	Rutgers,	Albany, N. Y.,	69 Bayard St.
HERBERT V. PALMER, Metaphysics.	Rutgers,	P'ghkeepsie, N.Y.,	18 Hertzog Hall.
JOHN EHRICK PARMLY, Chemistry and Agriculture.	Princeton,	New York City,	69 Albany St.
EVERT W. STAPELKAMP, Metaphysics.	Hope,	Gr'nleafton, Minn.,	16 Hertzog Hall.
ALAN H. STRONG, History and Constitutional Law.	Rutgers,	New Brunswick,	New Brunswick.
HENRY VEGHTE, Philology.	Rutgers.	New Brunswick,	New Brunswick.
JOHN S. VOORHEES, History and Constitutional Law.	Rutgers,	New Brunswick,	110 George St.
FREDERICK WEIGEL, History and Constitutional Law.	Rutgers,	New Brunswick,	New Brunswick.
DAVID T. WILLIAMS, Metaphysics.	Adrian,	Adrian, Mich.,	New Brunswick.

G. C. CLARK, M.D.,*	New Brunswick.
HOWARD MCSHERRY, ESQ.,*	New Brunswick.
H. B. WILLIS, ESQ.,*	New Brunswick.

* Engaged in the practice of their profession, and pursuing special studies with the Graduate Class in History and Constitutional Law.

SENIOR CLASS.

CLASSICAL SECTION.

Names.	*Residences.*	*Rooms.*
PETER S. BEEKMAN,	New Brunswick,	Hamilton St.
MATTHEW LINN BRUCE,	Andes, N. Y.,	58 Paterson St.
WILLIAM PATERSON BRUCE,	Andes, N. Y.,	58 Paterson St.
PETER CRISPELL,	Hurley, N. Y.,	4 Kirkpatrick St.
HENRY EVERTSON COBB,	Flushing, L. I.,	123 George St.
GEORGE DAVIS,	White House Station,	29 Hertzog Hall.
BENJAMIN EDWARD DICKHAUT,	East New York, L. I.,	35 Hertzog Hall.
LEVI B. EDWARDS,	Oceanic,	5 Codwise Ave.
JOHN HANDLEY,	Trenton,	Trenton.
WILLIAM GOODWIN LUDLOW,	New Brunswick,	81 Albany St.
JAMES GULICK MEYER,	Matteawan, N. Y.,	79 George St.
CHARLES EDWARD PATTISON,	Metuchen,	Metuchen.
FERDINAND V. ROGERS,	Davenport, Iowa,	78 Paterson St.
JOHN A. THOMPSON,	New Kingston, N. Y.,	39 Hertzog Hall.
HENRY VAN BRACKLE,	Hazlet,	35 Hertzog Hall.

SCIENTIFIC SECTION.

Names.	*Residences.*	*Rooms.*
GEORGE H. BLAKELY,	Middlebush,	Middlebush.
JOHN EDWARD HILL,	Newark,	Newark.
JACKSON JAQUES,	Iselin,	Iselin.
WILLIAM H. LUSTER, JR.,	Elizabeth,	Elizabeth.
JOHN WM. MCKELVEY,	New Brunswick,	57 Albany St.
FRANKLIN STODDART SMITH,	Jersey City,	Jersey City.
CYRUS W. FIELD SPROUL,	Keyport,	172 Burnet St.
HENRY R. L. WORRALL,	Elizabeth,	Elizabeth.

JUNIOR CLASS.

CLASSICAL SECTION.

Names.	*Residences.*	*Rooms.*
JOHN MITCHELL ALLEN,	Annandale,	12 Hertzog Hall.
MORRIS NORTON BEMUS,	Jamestown, N. Y.,	140 George St.
LOUIS BISHOP,	Trenton,	123 George St.
WILLIAM HENRY BOOCOCK,	Coxsackie, N. Y.,	39 Hertzog Hall.
W. EDWIN FLORANCE,	New Brunswick,	128 Neilson St.
J. DE PUY HASBROUCK,	High Falls, N. Y.,	78 Paterson St.
EDWIN KNICKERBOCKER LOSEE,	Upper Red Hook, N.Y.,	78 Bayard St.
EUGENE B. MATTHEWS,	Bound Brook,	Bound Brook.
FRANK SEYMOUR SCUDDER,	Upper Red Hook, N.Y.,	78 Bayard St.
ADRIAN VERMEULE, JR.,	New Brunswick,	Terrace Hill.
LOUIS AUGUSTUS VOORHEES,	New Brunswick,	75 Carroll Place.

SCIENTIFIC SECTION.

Names.	*Residences.*	*Rooms.*
ASHER ATKINSON,	New Brunswick,	Hamilton St.
WILLIAM HENRY BARNES,	E. Hampton, N. Y.,	75 George St.
CHARLES DESHLER,	New Brunswick,	College Ave.
†JOHN ELMER,	Fairton,	62 Church St.
GEORGE WILLIAM HART, JR.,	Metuchen,	Metuchen.
WILLIAM LESUEUR HAYNES,	Raritan,	96 George St.
ARTHUR COYLE PAYNE,	College Point, L. I.,	Metuchen.
†JOHN GEORGE TAIT,	Metuchen,	Metuchen.
LOUIS FREDERICK RUF,	Freehold,	140 George St.
FRANK VAN BRAKLE,	Keyport,	9 Paterson St.

† Partial.

SOPHOMORE CLASS.

CLASSICAL SECTION.

Names.	*Residences.*	*Rooms.*
GEORGE VANNEST BALDWIN,	New Brunswick,	103 George St.
WILLIAM SAMUEL BISHOP,	East Orange,	4 Kirkpatrick St.
LEWIS BIRGE CHAMBERLAIN,	Newburg, N. Y.,	29 Hertzog Hall.
FREDERICK DESHLER,	New Brunswick,	College Ave.
EDWARD WILKINS DEWEY,	Fort Plain, N. Y.,	55 Bayard St.
JOHN DE WITT, JR.,	New Brunswick,	Seminary Place.
WARREN HARDENBERGH DIXON,	Jersey City,	Jersey City.
CHARLES BAYLIS LUDLOW,	New Brunswick,	81 Albany St.
HERBERT LINDSLEY MATTICE,	Pine Plains, N. Y.,	69 Albany St.
ERNEST AMASA OHLEN,	Madison,	78 Paterson St.
DE WITT VAN DYKE REILEY,	New Brunswick,	Somerset St.
AARON LONGSTREET STILLWELL,	Somerville,	57 Albany St.
PETER STILLWELL,	White House,	57 Albany St.
THOMAS ALFRED STODDART,	Rahway,	Rahway.
GEORGE EDWIN TALMAGE,	Amoy, China,	33 Hertzog Hall.
*HENRY MARTIN VOORHEES,	Flemington,	59 Bayard St.
WILLIAM SPADER WILLIS,	New Brunswick,	Hertzog Hall.

SCIENTIFIC SECTION.

Names.	*Residences.*	*Rooms.*
LOUIS DAVID BLAUVELT,	New York City,	123 George St.
CHAS. SANDERSON CATHCART,	New Brunswick,	62 Welton St.
M. MOUNT CORLE,	Neshanic,	59 Bayard St.
U. GRANT DAVIS,	White House,	49 Schureman St.
ELMORE DE WITT,	Wallkill, N. Y.,	83 Bayard St.
CLARENCE M. DU BOIS,	Bridgeton,	83 Bayard St.
JOHN MOYER FARLEY,	Fort Plain, N. Y.,	69 Albany St.

*Partial.

Names.	*Residences.*	*Rooms.*
WILLIAM HOCKMAN,	Red Bank,	79 George St.
MONTFORT MATTHEWS,	Bound Brook,	Bound Brook.
LAURENCE EDMUND MCCABE,	East Hampton, N. Y.,	79 George St.
FRANK OSCAR NELSON,	New Brunswick,	Piscataway.
JOHN HOWARD PORTER,	Bordentown,	Bordentown.
JOSEPH BORDEN REYNOLDS,	Bordentown,	Bordentown.
FRANK W. RIBBLE,	East Millstone,	East Millstone.
SAMUEL DAVIS STRYKER, JR.,	Newark.	Newark.
GEORGE MERCER VALENTINE,	Woodbridge,	96 George St.
GEORGE ANTHONY VIEHMAN,	New Brunswick.	38 Dennis St.
WILLIAM H. WALDRON,	New Brunswick,	143 George St.

FRESHMAN CLASS.

CLASSICAL SECTION.

Names.	*Residences.*	*Rooms.*
CORNELIUS BRUYN,	Kingston, N. Y.,	4 Kirkpatrick St.
STEPHEN DUBOIS DEMAREST,	New Brunswick,	Seminary Place.
ALBERT BENJAMIN HERMAN,	Warsaw, N. Y.,	57 Albany St.
WILLIAM PIERSON MERRILL,	New Brunswick,	Raritan Ave.
HENRY HOLMES PALMER,	New Brunswick,	College Ave.
FRANKLIN AMBLER PATTISON,	Metuchen,	Metuchen.
FRANK J. SAGENDORPH,	Hudson, N. Y.,	62 George St.
ASA WYNKOOP,	Catskill, N. Y.,	62 George St.

SCIENTIFIC SECTION.

Names.	*Residences.*	*Rooms.*
WALTER WHIPPLE BATCHELDER,	Albany, N. Y.,	57 Albany St.
WARREN JAMES BRODIE,	Geneseo, N. Y.,	57 Albany St.
THURSTON WALKER CHALLEN,	New Brunswick,	Hamilton & Easton Sts.
ALLEN PRICE FORD,	Crosswicks,	56 Albany St.
HARRY JOSEPH MARCH,	New Brunswick,	Somerset & Division Sts.
CORNELIUS BRUYN MARSHALL,	Metuchen,	Metuchen.
DAVID TRUMBULL MARSHALL,	Metuchen,	Metuchen.
FREDERICK SCHUYLER NELSON,	Piscataway,	New Brunswick.
EDWARD LUDLAM RICE,	Dennisville,	35 Schureman St.
WALTER SAVAGE,	Rahway,	Rahway.
HARRY ATWATER SMITH,	Raritan,	96 George St.
RALPH STRICKLAND, JR.,	Albany N. Y.,	57 Albany St.
HAROLD TAIT,	Metuchen,	Metuchen.

Names.	*Residences.*	*Rooms.*
BURTON MORSS TREMPER,	Kingston, N. Y.,	96 George St.
*MARTIN G. VAN SLYKE,	Coxsackie,	57 Albany St.
SAMUEL HERBERT VOORHEES,	Princess Anne, Md.,	52 Hertzog Hall.
WILLIAM LINDSLEY WARD,	Newark,	Newark.
ISAAC LEWIS WINCKLER,	New Brunswick,	Hardenbergh St.

SPECIAL COURSE IN CHEMISTRY.

SECOND YEAR.

Name.	*Residence.*	*Room.*
HENRY RUTGERS BALDWIN,	New Brunswick,	103 George St.

FIRST YEAR.

Names.	*Residences.*	*Rooms.*
WALTER DRAPER GREGORY,	Fort Plains, N. Y.,	69 Albany St.
FREDERICK ALLEN MANDEVILLE,	Newark,	Newark.
RICHARD ADAMS LEARNED,	New York City,	123 George St.
†EDWARD D. PALMER,	New Brunswick,	Somerset St.
HARVEY IKEDELL,	New Brunswick,	49 Albany St.

SPECIAL COURSE IN AGRICULTURE.

Name.	*Residence.*	*Room.*
WILLIAM MANUEL RIVA,	Havana, Cuba,	79 George St.

* Special Course.

† Partial.

RECAPITULATION.

NEW JERSEY,	87
NEW YORK,	35
IOWA,	1
MARYLAND,	1
MINNESOTA,	1
MICHIGAN,	1
WISCONSIN,	1
CUBA,	1
CHINA,	1
TOTAL,	129

SUMMARY.

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CLASSICAL DEPARTMENT.	
SENIORS,	15
JUNIORS,	11
SOPHOMORES,	17
FRESHMEN,	8
SCIENTIFIC DEPARTMENT.	
SENIORS,	8
JUNIORS,	10
SOPHOMORES,	18
FRESHMEN,	18
SPECIAL STUDENTS IN CHEMISTRY,	
FIRST YEAR,	5
SECOND YEAR,	1
SPECIAL STUDENTS IN AGRICULTURE,	1
TOTAL IN COLLEGE,	129

Classical Department.

1. Requisites for Admission.

Every applicant for admission must submit to the President proper testimonials of a good moral character.

Examinations for admission to the College will be held on Monday and Tuesday, June 16th and 17th, 1884, beginning at 10 o'clock Monday morning. Applicants for admission may also be examined on Thursday, September 18th, at 9 A. M. Students who can do so are advised to be present for the June examinations.

Examinations will be both written and oral.

Candidates for advanced classes must sustain a satisfactory examination upon the subjects previously studied by the class which they propose to enter, as well as on those required for admission into the Freshman Class. Under this regulation students are admitted at any time during the Collegiate year.

Students who desire to pursue selected branches of study may do so, if properly prepared to pursue them with the regular classes. Special provision is made for such students in the Scientific Department.

Notice is given below of changes in the requirements for admission, *to go into effect in* 1884. It is expected that students who present themselves will be prepared, by careful study and by *reviews* of their work, to pass successfully a thorough examination on the subjects which are required.

Hereafter *only such students will be admitted with conditions* as are, in the opinion of the examiners, so nearly prepared as to be able to make up all deficiencies during the first two months of the term, while maintaining a good standing in their class.

Conditioned students will have opportunity given them to remove their entrance conditions as early as possible in the

first term. Students who have not complied with "conditions," and passed satisfactory examinations before the beginning of the second term, will fall back, without special action of the Faculty, into the class below, or cease to be candidates for a degree.

PRIZES FOR THE BEST ENTRANCE EXAMINATIONS, CLASSICAL COURSE.

A FIRST PRIZE OF ONE HUNDRED DOLLARS in cash and a SCHOLARSHIP YIELDING $300, to apply on term bills; and a SECOND PRIZE OF FIFTY DOLLARS in cash and a SCHOLARSHIP YIELDING $300, to apply on term bills, will be awarded to the students who shall be adjudged by the Examiners to have passed the best examination among the applicants for admission to the Freshman Class, in 1884. The names of the successful candidates, and of the schools at which they prepared for college, will be printed in the annual catalogue. The cash prizes will be awarded, one-half at matriculation and one-half at the end of the second term of the Freshman year. The scholarship funds will be applied to cancel term bills for tuition during the course, and will be forfeited if the student's general average on the work of the year falls below 80 on a scale of 100.

These two cash prizes are given this year, as last, by Hon. SAMUEL SLOAN, of New York, a member of the Board of Trustees.

The FIRST PRIZE for the Best Entrance Examination, Sept. 1883, was awarded to STEPHEN DU BOIS DEMAREST, who was prepared at the Rutgers Grammar School.

The SECOND PRIZE was awarded to WILLIAM PIERSON MERRILL, who was prepared at the New Brunswick High School.

The following, or a full equivalent, are the requirements for admission to the Freshman Class:

LATIN.—Harkness', or Allen and Greenough's, or Gildersleeve's Latin Grammar, including principles of Prosody.

The first part of Fischer's Manual of Latin Grammar and Composition, or Jones' Latin Composition, or the first 44 sections of Arnold's Latin Prose Composition.

Cæsar, Gallic War.

Virgil, Æneid, 6 Books.

Seven Orations of Cicero, of which it is recommended that the orations for the Poet Archias, on the Manilian Law, and for King Deiotarus shall be three.

Questions on the subject-matter, the history, the geography and the mythology involved in the Latin read. *Hereafter, students will be tested on reading "at sight" easy Latin, (e. g., Cæsar, Sallust, Cicero, Quintus Curtius;) and a map of Italy, to be drawn from memory, at the examination, will be required, together with familiarity with the classical geography of Gaul and Spain; and Smith's Smaller History of Rome (or an equivaleut history of this period,) to the time of the Empire.*

GREEK.—Hadley's or Goodwin's Greek Grammar, including the principles of Prosody.

Xenophon's Anabasis—three books, or an equal amount of Goodwin's Greek Reader.

Arnold's First Greek Book, or Whiton's First Greek Book, entire; and Jones' Exercises in Greek Composition or Sidgwick's First Greek Writer, Introduction and 60 exercises.

Homer—The Iliad, three books, (omitting the catalogue of the ships.)

Questions on the subject-matter, etc., as above.

Hereafter, Greek History will be required, Smith's Smaller History of Greece, or an equivalent; students will be tested at the entrance examinations in reading at sight easy Greek prose; and a map of Greece, with a good knowledge of the Geography of the Greek Islands and of Asia Minor, will be required.

MATHEMATICS.—Arithmetic complete, including the Metric system.

Algebra through Quadratic Equations, including Radicals; or the first eighteen chapters of Wentworth's Complete Algebra.

Plane Geometry—three books of Wentworth, or an equivalent, *including the Problems and Exercises.* [*After* 1884, *four books of Wentworth will be required.*]

Careful attention should be given to the exercises in Geometry, as they greatly aid in imparting a readiness in geometrical reasoning.

THE ENGLISH BRANCHES:—

Geography;—

English Grammar;—

Spelling;—

History of the United States; (Higginson's Young Folks' History; or Swinton's Condensed History of United States; or Seavey's Goodrich).

Hereafter a short essay will be required, to be written at the examination, on some theme drawn from books announced in advance; the essay to be correct in spelling, punctuation, division into paragraphs, grammar and expression.

In June, 1884, the themes will be drawn from these books, which all students who apply for admission then should have read carefully: Shakespeare's *Julius Cæsar;* Scott's *Lady of the Lake;* Irving's *Sketch-Book.*

In June, 1885, students should be familar with Shakespeare's *Merchant of Venice;* Goldsmith's *Deserted Village;* Cooper's *Spy.*

2. SUGGESTIONS IN REGARD TO PREPARATION.

LATIN.—In preparing in Latin, the student should give more attention to the prose than the poetry of the language.

Besides the common rules he should be thoroughly drilled in the use of the moods and tenses, the consecution of tenses, the gerundive construction, etc., and should be taught to analyze the sentence into its different parts.

LATIN COMPOSITION.—The student should have as much exercise in writing Latin as possible. From the first, exercises in rendering English into Latin, both orally and in writing, are earnestly recommended.

PRONUNCIATION.—The system followed is the Roman. For correctness of pronunciation, the rules of prosody are necessary to those who have not been thoroughly accustomed to the correct sound of the Latin words.

GREEK.—The applicant must be thoroughly familiar with the leading principles of the whole Grammar, including accent, quantity and prosody.

In pronunciation, the accent must be followed in prose; but in poetry, regard will be had only to quantity.

Work done in reading other authors than those named in the requirements will be accepted, provided the pupil can pass upon a *full* equivalent.

MATHEMATICS.—Attention is especially called to the Metric System of Weights and Measures, a practical knowledge of which is indispensable, since it is *used* in the classroom: and to the *essential importance of a thorough preparation in the elements of Algebra*, on which subsequent success in mathematics so much depends. The mistake is often made of passing too hurriedly over the first few chapters of Algebra. The whole book will be more quickly and surely mastered if the first part be studied slowly and thoroughly.

In preparing in Mathematics the student *should acquire a proficiency aud readiness in the application of the principles; and to that end the careful solution of numerous and varied examples is earnestly recommended.* It is also desirable to cultivate habits of neatness and order in the presentation of work on the blackboard.

U. S. HISTORY.—Candidates for admission are examined in the History of the United States, with special reference to the colonization of the several States, the forms of government which existed previous to the War for Independence, the causes and principal events of that war, the period of the Confederation, the establishment of the Federal Constitution, with the general history subsequent to that event.

3. COURSE OF INSTRUCTION.

The COURSE OF INSTRUCTION occupies four years, with three terms in each year.

The following is a scheme of the studies of the course. This scheme is not always strictly followed, either in the order of studies or in the use of the particular text-books named; but it furnishes an exhibit of the amount of work required of students during the four years, and indicates to candidates for advanced standing the equivalents which will be accepted from them:—

FRESHMAN CLASS.

Exercises during the year in Composition and Declamation.
Bible-Class, Sabbath morning.

FIRST TERM.

1. LATIN.—Livy; Roman History; Composition.
2. GREEK.—Lucian's Timon, or three books of Homer; Sidgwick's First Greek Writer, beginning with the 61st Exercise.
3. MATHEMATICS.—Wentworth's Geometry, from Book IV.
4. RHETORIC.—B. Kellogg; Lectures; Essays.
5. PHYSIOLOGY.—Dalton; Lectures.

SECOND TERM.

1. LATIN.—Livy; Composition; Roman History.
2. GREEK.—Demosthenes' Olynthiac Orations, 2d and 3d, and one Phillipic; Sidgwick's First Greek Writer finished; Jebb's Primer of Greek Literature.
3. MATHEMATICS.—Wentworth's Geometry completed; Wentworth's Algebra from Logarithms.
4. ENGLISH LITERATURE.—History of the English Language; Study of Words, Trench.
5. ELOCUTION.—Lectures.
6. ENGLISH COMPOSITION.—Exercises.

THIRD TERM.

1. LATIN.—Horace; Composition; Antiquities.
2. GREEK.—Isocrates' Panegyric, Ed. Felton; Wilkins' Manual of Greek Prose.
3. MATHEMATICS.—Wentworth's Algebra completed.
4. BOTANY.—Gray.
5. ENGLISH LITERATURE.—An English Author.
6. ENGLISH COMPOSITION.—Exercises.

SOPHOMORE CLASS.

Exercises during the year in Composition and Declamation.
Bible-Class, Sabbath morning.

FIRST TERM.

1. LATIN.—De Officiis; Latin Composition; Antiquities.
2. GREEK.—Sophocles' Œdipus Rex; Wilkins' Manual of Greek Prose Composition; Lectures on Greek Literature.

3. MATHEMATICS.—Wentworth's Trigonometry, Plane and Spherical.
4. MODERN HISTORY.—Freeman's Outlines, with Essay-Writing.
5. ENGLISH LITERATURE.—An English Author; Essays in Literary Criticism.

SECOND TERM.

1. LATIN.—Tacitus; Plautus; Latin Literature; Composition.
2. GREEK.—Thucydides, one book; Wilkins Manual of Greek Prose Composition; Lectures on Numismatics, with Illustrations.
3. MATHEMATICS.—Trigonometry completed; Bowser's Analytic Geometry.
4. MODERN HISTORY.—Freeman's Outlines, with Essays by the Class.
5. ENGLISH LITERATURE.—An English Author; Essays in Literary Criticism.

THIRD TERM.

1. LATIN.—Horace; Composition; Latin Literature.
2. GREEK.—Aristophanes' Knights, Koch's Ed.; Wilkins' Manual of Greek Prose Composition completed; Greek Antiquities; Lectures on the History and Deciphering of Manuscripts, with Illustrations.
3. MATHEMATICS.—Bowser's Analytic Geometry.
4. CONSTITUTIONAL HISTORY OF ENGLAND.—Creasy.
5. ENGLISH LITERATURE.—An English Author; Essays in Literary Criticism.

JUNIOR CLASS.

Exercises during the year in Composition and Original Declamation.

Bible-Class, Sabbath morning.

FIRST TERM.

1. PHYSICS.—Deschanel; Lectures, with Experiments.
2. INORGANIC CHEMISTRY.—Lectures, with Experiments; Barker.
3. MENTAL PHILOSOPHY.—Porter's Elements of Intellectual Philosophy, and Lectures, with Essays on Metaphysical Subjects.
4. GERMAN.
5. LATIN.—Juvenal, Plautus, Early Latin and Inscriptions, Archæology.

ELECTIVE STUDIES, at least one of which is to be pursued:

1. MATHEMATICS.—Differential and Integral Calculus, Bowser.
2. CHEMISTRY.—Experimental Chemistry, Elliah & Storer; Qualitative Analysis, Cloeves; Laboratory Practice.
3. ENGLISH.—Sweet's Anglo-Saxon Primer; Chaucer.

SECOND TERM.

1. PHYSICS.—Deschanel; Lectures, with Experiments.
2. INORGANIC CHEMISTRY.—Lectures, with Experiments; Barker.
3. MENTAL PHILOSOPHY.—Porter's Elements of Intellectual Philosophy, and Lectures; Essays on Metaphysical Subjects.
4. LOGIC.—Thompson's Outlines of the Laws of Thought.
5. GREEK.—Plato's Phædo, Wagner's Edition; Buckholtz Anthology, 2d Bändchen.

ELECTIVE STUDIES, at least one of which is to be pursued:

1. GERMAN.
2. MATHEMATICS.—Calculus, Bowser.
3. CHEMISTRY.—Qualitative Analysis, Cloeves; Lectures; Laboratory Practice.
4. ENGLISH.—Shakespeare.

THIRD TERM.

1. ASTRONOMY.—Newcomb and Holden.
2. INORGANIC CHEMISTRY.—Lectures, with Experiments; Barker.
3. HISTORY OF CIVILIZATION.—Guizot; Essays.
4. GERMAN.

ELECTIVE STUDIES, at least one of which is to be pursued:

1. LATIN.—Quintilian; Roman History; Information on Roman Oratory and Lectures on Archæology.
2. MATHEMATICS.—Calculus, Bowser.
3. CHEMISTRY.—Qualitative Analysis, Cloeves; Lectures; Laboratory Practice.
4. ENGLISH.—Milton.
5. GREEK.

SENIOR CLASS.

Exercises during the year in Composition and Original Declamation.
Bible-Class, Sabbath morning.

1. MORAL PHILOSOPHY.—Calderwood's Handbook; Lectures.
2. POLITICAL ECONOMY.—Bowen and Perry; Lectures; Essays.
3. ORGANIC CHEMISTRY.—Pinner-Austen; Lectures, with Experiments.

4. PHYSICS.—Deschanel; Lectures.

ELECTIVE STUDIES, at least one of which is to be pursued:

1. GREEK.—Aristotle's Categoriæ with Porphyry's Isagoge.
2. ASTRONOMY.—Loomis' Practical Astronomy; Observatory Work; Lectures.
3. MODERN LANGUAGES.—German.
4. CHEMISTRY.—Quantitative Analysis, Fresenius; Lectures; Laboratory Practice.
5. LATIN.
6. HISTORY.
7. HEBREW.—Extra.

SECOND TERM.

1. MORAL PHILOSOPHY.—Calderwood; Butler's Analogy; Lectures.
2. INTERNATIONAL LAW.—Woolsey.
3. CONSTITUTION OF THE UNITED STATES.—Pomeroy and Cooley; Essays.
4. CHEMISTRY.—Organic Chemistry; Pinner-Austen; Lectures, with Experiments.
5. GEOLOGY.—Lectures, the last half of the term.

ELECTIVE STUDIES, at least one of which is to be pursued:

1. LATIN.—Cicero, De Oratore, Academics; Cicero's Philosophy.
2. ASTRONOMY.—Loomis' Practical Astronomy; Observatory Work; Lectures.
3. MODERN LANGUAGES.—German.
4. CHEMISTRY.—Quantitative Analysis, Fresenius; Lectures; Laboratory Practice.
5. HEBREW.—Extra.
6. GREEK.
7. HISTORY.

THIRD TERM.

1. MORAL PHILOSOPHY.—Butler's Analogy, completed; Lectures and Discussions in Practical Ethics and the Duties of Citizenship.
2. GEOLOGY.—Lectures.
3. ARCHITECTURE.—Lectures.

ELECTIVE STUDIES, at least one of which is to be pursued:

1. GREEK.—Trendelenburg's Elementa Log., Aristot.; Lectures on the Organon.
2. MODERN LANGUAGES.—German or French.
3. CHEMISTRY.—Quantitative Analysis, Fresenius; Lectures; Laboratory Practice.
4. ASTRONOMY.—Loomis' Practical Astronomy; Observatory Work; Lectures.
5. LATIN.
6. HISTORY.
7. HEBREW.—Extra.

4. Remarks on the Course of Study.

In the above schedule all the Studies up to the close of the Sophomore year are obligatory, and are intended to be of such a character as will be equally desirable whatever profession or career is subsequently chosen. During the Junior and Senior years, certain subjects are required of all regular students, while others are made elective, at least one of which must be pursued by each student.

MORAL PHILOSOPHY AND PRACTICAL ETHICS.

Moral Philosophy is taught during the Senior year by the study of text-books, by comments and criticisms, and by lectures. Full and intelligent discussion in the class-room is encouraged, in the belief that mere memorizing and reciting does not so teach such truth as to make it vitally the students' own.

The definite aim of the work in this department is not simply to set before the student what certain authors have written concerning theories of morality and virtue; but to make the study of the fixed and eternal distinction between right and wrong tend directly, so far as possible, to the voluntary and intelligent acceptance of the moral law, by every student, in the daily and hourly direction of his life.

A Course of Lectures on Practical Ethics is given; and lectures and discussions on the Duties of Citizenship are made an especial feature of this course of study.

A Sabbath morning Bible-Class, which all the students attend, is conducted by the President.

THE EVIDENCES OF CHRISTIANITY.

During the second and third terms, a course of lectures on the Evidences of Christianity is given to the Senior Class by the Ex-President of the College.

LANGUAGES.

Latin.—Prose authors of the Classical period are read first, and the thorough grammatical drill is given upon the language in its most correct form. Next, a prose author of

the post-classical period is read. Then the poets, at least one in each literary period, are taken up in their chronological order. The course is concluded with a rhetorical and a philosophical treatise. Exercises in Latin Composition are continually required of the student. History, archæology, and the social life of the Romans are taught by lectures and by an unusually full collection of charts, photographs, facsimiles, etc.

GREEK.—The Classical Greek authors are read during the entire Freshman and Sophomore years, one term of the Junior, and two terms of the Senior year. The course is intended to embrace at least one complete treatise from a leading author belonging to each period from Homer to Lucian. While the amount read is distinctly indicated by the Catalogue, it is the purpose to vary the authors, or the portions from the same author, every year. Term examinations are in writing.

Promising students are encouraged to take special courses of study, in addition to the regular class work; and private instruction, supplemented by an efficient Library, is constantly given without charge. The following books of reference are recommended: Smith's Classical Dictionaries, 6 vols.; Jelf's Greek Grammar; Krüger's Greek Grammar and Kühner's ausführliche griechische Grammatik; Liddell and Scott's Lexicon, 7th Oxford Edition; Grote's History of Greece and Mahaffy's History of Greek Literature.

ENGLISH LANGUAGE AND LITERATURE.—The course in English embraces the elective study of Anglo-Saxon and early English, with the required study of the history of the language and the history of the literature. The principal English Classics are read in order. The selection is varied every year. A course of private reading is prescribed, upon which examinations are held. Essays in literary criticism are required during the Sophomore year. The elective study of the language and literature is pursued during the Junior year.

GERMAN is studied during the Junior and Senior years; and while the correct use and pronunciation of the spoken

language is taught, special stress is laid upon the ability to read with fluency the standard authors. The Seniors have frequent practice in German conversational exercises, and lectures on German literature. There are also classes for especial work in scientific German; and German text-books in Chemistry are in use to a limited extent.

FRENCH is taught throughout the Freshman year, in the Scientific Course, and is continued during a part of the Sophomore year, preparing the students thoroughly for the use of French text-books in scientific subjects. Classes are already using French text-books in Physics. The aim of the course is to make the grammatical and linguistic training in the study of this language as valuable to the student as possible; and to accustom him to use French books and periodicals with perfect freedom in his professional studies and work.

In the Classical Course, instruction in French is now offered as an extra study, and after this year will be given as required or as elective work.

HEBREW.—This language is taught as an extra study during the Senior year to those who desire it.

MATHEMATICS AND ASTRONOMY.

The required studies in Mathematics include Geometry, with problems and exercises in Geometrical invention; Algebra and Plane and Spherical Trigonometry, with their application to problems in Surveying and Astronomy, and Analytic Geometry. These are the mathematical studies of the first two years.

Those who wish to do so may elect in the Junior year the study of the Calculus and its applications.

Care is taken throughout that every principle receive a rigorous demonstration and that it be applied as far as is practicable. No principle is thoroughly learned by the student until he can apply it.

Elementary Astronomy is taught during the last term of the Junior year to students of the Classical and Engineering courses. The study of Theoretical and Practical Astronomy,

with the use of the instruments of the Observatory, is elective in the Senior year. It is desirable that those who intend to take elective Astronomy should take the elective Mathematics of the Junior year, that they may be prepared for lectures in the more advanced part of the course.

The DANIEL S. SCHANCK OBSERVATORY of Rutgers College is well equipped for the work of practical instruction, being supplied with a six and one-half inch equatorial telescope, a meridian circle with four-inch object glass, a chronograph, a repeating circle, and other instruments. It is in telegraphic connection with other observatories.

The refined methods of measurement which the use of astronomical instruments requires, the discussion of results, and the determination of errors afford a means of mental training unsurpassed in value. Add to these the familiarity with spherical astronomy and with the constellations which this study imparts, and the advantage gained is a strong recommendation of its pursuit.

The Observatory was designed and is used not only for independent work, but for the instruction of students in the theory and the use of astronomical instruments, and in practical observatory work. Unusual facilities are offered to students.

PHYSICS.

This subject is taught by lectures, and copious additions are made to the matter of the text-book. Each point is demonstrated as far as possible; and the relations of the subject to ordinary natural phenomena, the processes of the industrial arts, etc., are pointed out. Students are encouraged to use the apparatus under the direction of the Professor in charge, and are trained to distinguish the essential from the casual conditions of experiments, as well as to infer from scientific data no more than is certain and warranted. The course begins with Mechanics and proceeds to Heat, Electricity, Sound and Light.

The apparatus is well fitted to illustrate all principles, and such additions are made to it as the industrial applications of science demand.

Students in the Scientific Course this year begin the study of Physics from the Paris Edition (in the French) of Deschanel's larger treatise.

NATURAL HISTORY.

The course in this department begins with the Freshman year, in which Physiology, Zoology, and Botany are taught. The several text-books are in all cases supplemented by illustrated lectures, and in the study of Botany by frequent field excursions for practical work in the analyzing and classification of botanical specimens. Class-room microscopes, and the larger solar microscope are continually used by the students in all these branches of study. In the Junior and Senior years, these subjects are still further elaborated and studied in the sciences of Meteorology, Physical Geography, and Geology. The course of instruction is planned so as to bring these objects of every day observation to the continued attention of the student, to teach him the principles of classification and systematic study, and to show their important relations to the successful conduct of the practical affairs of life. The extensive collections of minerals, fossils, geological and botanical specimens, shells, birds, etc., are arranged for study in the Museum of Geological Hall.

CHEMISTRY.

INORGANIC CHEMISTRY is taught by Text-Book and Lectures. The subject is introduced by experimental lectures on the volume-composition of substances. Then follows a careful black-board drill on the writing of empirical and constitutional formulas of acids, bases and salts. The elements are next taken up in lectures, followed by recitations. In all cases the aim is to illustrate *every point* experimentally, thus giving the student ample experience in rigid experimental demonstration. The students are required to take full notes on the lectures, and sketches of the apparatus used in the experiments. These notes are afterward copied and handed to the Professor for examination, criticism, and correction, training the student in accurate observation, and in

facilty and brevity of expression. During the year, Stoichiometry, the Mathematics of Chemistry, is taught by black-board exercises.

ORGANIC CHEMISTRY is taught by lectures and recitations. Beginning with the determination of the molecular weight of organic compounds, the student is led to examine the principles of substitution, valence and structure of organic compounds. Starting out from Methane, the various members of the Methane (mono-carbon) series are derived. When this series has been completed, the Ethane series is taken up and gone through with in the same manner. Then follow the Butane and Propane series, etc. At the end of each series a recapitulation of the typical reactions, and relations of each group is given.

The manner of treating the subject is substantially the same as that introduced by Prof. Hofmann of Berlin. As the various substances are considered, their relations to vegetable and animal life and to agriculture are pointed out. Attention is also given to their practical applications, as in food, medicines, dyeing, and in manufactures generally. The lectures are accompanied by full experimental illustrations.

APPLIED CHEMISTRY.—The applications of Chemistry to the arts and manufactures are taught by lectures and text-book. Whenever it is practicable, the actual products are exhibited to the students, and the manufacturing processes reproduced in miniature. Attention is drawn to the scientific relations and connections between the various manufactures. The great losses by imperfect methods of manufacture and by waste-products are pointed out, and the student is taught to see the true economy of production. Illustrative of the lectures, visits are made to various manufacturing establishments, of which there are a number in and about New-Brunswick, and an opportunity is given to see manufacturing operations in actual working.

ELECTIVE CHEMISTRY.—In the Junior and Senior years, students may elect a course in Analytical Chemistry with Laboratory Practice and Lectures. The experimental studies

in this department have proved both attractive and profitable to those intending to devote themselves to Law or Medicine, or to business pursuits, as well as to men who intend to teach or to pursue lines of work immediately connected with chemistry and its applications.

The pupil begins by making the experiments in Elliot and Storer's Manual, thus acquiring by actual experience a familiarity with chemical substances and chemical phenomena.

The study of *Qualitative Analysis* is next taken up. The student makes the tests, studies the reactions, and proceeds rapidly from analysis of simple substances to the more complex. The method here followed of keeping notes of every step affords the student valuable practice in the three divisions of experimental science—Experiment, Observation, and Inference. The theory of analysis is explained in the lectures and recitations on the subject. In connection with this subject, *Blowpipe Analysis* is also taught. *Quantitative Analysis* now follows. The student having learned the means of detecting the constituents of a substance, proceeds to the determination of their amount. Pure salts of known composition are analyzed at first, so that the results may be compared with the theoretical percentages. A sufficient degree of accuracy having been obtained, substances of unknown composition, as minerals, metals, ores, waters, urines, poisons, fertilizers, coals, etc., are analyzed. Having thus become thoroughly acquainted with the theory and practice of analytical chemistry, the student undertakes original experimental investigations in the various branches of pure and applied chemistry. Results obtained in investigations have been from time to time published in the scientific journals. During their entire course students are required to prepare samples of pure chemicals, and by this means such practice is given in manipulation as cannot be acquired in any other way.

RHETORIC.

ELOCUTION.—During the Freshman year, lectures are delivered on the general principles of Elocution, and a

practical application of these principles is made by appropriate exercises in Declamation, in which the members of the class are carefully drilled. In addition to this there are exercises in Oratory by all the students, both in the class-room and in the College Chapel. The Freshmen and Sophomore classes speak selected pieces, and the Juniors and Seniors are required to deliver original orations.

In the department of Rhetoric, begun during the Freshman year, an effort is made to teach the principles of Composition, not as laid down in mechanical rules, but as springing from psychological laws and relations. Ideas presented in accordance with various mental requirements and influences are shown to contain the true philosophy of rational and effective discourse. Illustrative references to the Masterpieces of Oratory, and to other forms of the best English Classical Literature are freely given. Essays are required throughout the entire course.

METAPHYSICS AND LOGIC.

MENTAL PHILOSOPHY.—Porter's Elements of Intellectual Philosophy is employed as a text book during the first term and a part of the second term of the Junior year. The characteristic doctrines of the Distinctive Schools in Ancient and Modern Philosophy are presented in a course of Lectures upon the representative thinkers in these schools. Much attention is paid to the most important Philosophical and Metaphysical questions at issue among living speculators. And the results of recent critical discussions together with comments are interspersed with the daily recitations.

LOGIC is taught by a text-book, but special care is taken to enforce a practical application of logical formulas in the resolution of arguments, and the detection of sophistries. To this end illustrative examples are drawn from different authors and much oral instruction is given.

HISTORY, POLITICAL ECONOMY AND CONSTITUTIONAL LAW.

HISTORY.—The study of History is begun in the Sophomore year with the use of a text-book giving the outlines of modern history, beginning with the fall of the Roman

Empire and tracing the formation and growth of modern states. In this part of the course a knowledge of historical geography is essential, and to this end, a constant use of the historical atlas is required of the student. From time to time and increasingly, as the class becomes familiar with the facts of history, and especially with the general relations of events, topics are assigned for special study, the results of such study by different members of the class and the various historical narratives which have been consulted are compared, the purposes and characteristics of historians pointed out, and instruction is given on the sources of history. The third term of the Sophomore year is spent in the study of the history of the English Constitution. Instruction in Ancient History is given to the students of the Classical Department by the Professors of Latin and Greek; to the students of the Scientific Department in the Sophomore year by the Professor of History.

In the Junior year the purpose is to give a view of the Philosophy of History. Guizot's History of Civilization in Europe is used as a text-book. In lectures before the class, attention is directed to the action and reciprocal influences of political forces. The subjects assigned for essays are intended to stimulate a desire to understand the abstract and universal ideas which underlie the causes of events and which give to history its continuity and unity.

For students of the Senior year and for graduates, the Professor of History has formed a class in which the methods of study will be those of the so-called historical "Seminary." The following may serve as examples of the nature of the subjects proposed for investigation in this class:

Methods of historical inquiry; fields open to the American student for original historical research; the nature of local government in England and in America; comparative study of local institutions in the United States; the English Government in its theory and methods.

POLITICAL ECONOMY.—Instruction is given in Political Economy to the Junior Class of the Scientific Department and to the Senior Class of the Classical Department by

means of text-books, lectures and conversational discussions. The student is required to become familiar with the leading principles of this subject as presented by the author whose work is used as a text-book, and is then encouraged to study economical problems of the present time from the historical, and so far as may be, absolutely impartial standpoint.

CONSTITUTIONAL LAW.—The Senior Class will pursue the study of Constitutional Law in the second term. With the study of the present status of Constitutional Law, a constant reference to the reports of decisions in the more important cases will serve to develop a familiarity with the processes of constitutional growth. Subjects involving constitutional questions will be assigned for the writing of essays.

During the same term the study of the History of the Constitution of the United States is pursued by the Junior Class of the Scientific Department.

INTERNATIONAL LAW.—The work of a French or German author will be made the basis of an exposition of the principles of International Law, while at the same time the acknowledged superiority of American and English authorities will be kept in view. The subject is taken up in the second term of the Senior year.

PHYSICAL DEVELOPMENT.—The Athletic Association composed of students of Rutgers College, posesses a large and comodious ground. Within proper limits athletics are encouraged.

SCIENTIFIC DEPARTMENT.

RUTGERS SCIENTIFIC SCHOOL:

BY ACT OF THE LEGISLATURE CONSTITUTED THE STATE COLLEGE FOR THE PROMOTION OF AGRICULTURE AND THE MECHANIC ARTS.

BOARD OF VISITORS.

(APPOINTED BY THE GOVERNOR.)

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HON. WILLIAM PARRY, *Chairman.*

GEORGE H. COOK, *Secretary.*

1. CONDITIONS OF ADMISSION.

Every applicant for admission must be sixteen years of age, and must submit to the President proper testimonials of a good moral character. If an applicant for a State Scholarship, he must also present to the President a certificate of appointment from the County Superintendent.

Examinations for admission will be held on the same days as for the Classical Department, viz.: on the Monday and Tuesday preceding Commencement, beginning at 10 o'clock, A. M. on Monday, in the President's office. Applicants for admission may also be examined on Thursday, September 18th, at the same hour and place; but all students who can conveniently do so, are advised to be present in June.

Students may enter an advanced class either at the beginning of the College year or at other times, on condition that they sustain a satisfactory examination both on the preliminary studies and on those already passed over by the class which they propose to enter.

Provision is made for such students as wish to devote themselves to special subjects, if they are prepared to study profitably with the regular classes in those subjects.

The following are the subjects in which those desiring to enter the Freshman Class of the Scientific Department are examined. As they are all such as can be acquired in our best common schools, *it is insisted that the preparation in them shall be thorough and complete.* The general regulations as to conditions and their removal will be the same as those which apply to the classical course; and may be found on pages 15 and 16.

1. ARITHMETIC.—Fundamental Operations; Common and Decimal Fractions; Denominate Numbers, including the Metric System; Percentage, including Interest and Discount; Proportion; Extraction of the Square and the Cube Roots.

2. ALGEBRA to Series; as much as is contained in Loomis' Treatise on Algebra, Wentworth's Complete Algebra, or Wells' University Algebra.

3. PLANE GEOMETRY. The *whole* of Plane Geometry will be required.

4. ENGLISH GRAMMAR—including Spelling.
5. DESCRIPTIVE GEOGRAPHY.
6. PHYSICAL GEOGRAPHY.
7. HISTORY OF THE UNITED STATES.*
8. Such a knowledge of Elementary PHYSICS and CHEMISTRY as may be obtained from Peck's Ganot's Physics, or Wells' Natural Philosophy, and Valentine's Twenty Lessons in Chemistry, or Cooley's or Steele's Chemistry, will be required for admission.

In preparing the student for this course, it is recommended that he be drilled thoroughly in Arithmetic, as a clear understanding of its simple elementary and practical principles is essential to a good Mathematician. His preparation in Algebra to Series should be very thorough. In addition to understanding the PRINCIPLES of the science, he must fix them in his memory, and learn their bearing and utility, and for this reason he must pay great attention to the solution of practical examples. What is needed is ability to solve ordinary examples with facility and explain them thoroughly.

Attention is specially called to the Metric System of Weights and Measures, a practical knowledge of which is indispensable, since it is *used* in the class-room.

2. COURSES OF STUDY.

Four distinct courses of study are included in the schedule which follows:

I. A COURSE IN CIVIL ENGINEERING AND MECHANICS.
II. A COURSE IN CHEMISTRY AND AGRICULTURE.
III. A SPECIAL COURSE IN CHEMISTRY.
IV. A SPECIAL COURSE IN AGRICULTURE.

During the first year the studies of the two full courses are the same, and are designed to furnish a suitable introduction to the pursuit of the higher branches in either.

* For particulars see page 19.

ENGINEERING COURSE.—During the last three years, the students in this course are instructed in Railroad Curves, Descriptive Geometry, Analytic Geometry, Differential and Integral Calculus, Analytic Mechanics, Civil Engineering, Bridge-Building and Geodesy; and have daily practice in Draughting, with Exercises and Problems in Geometrical Constructions, in Descriptive Geometry, Topographical, Mechanical and Architectural Drawing, and in Graphical Statics.

Students in this course, and in the Chemical and Agricultural Course, in addition to the special and technical studies of their course, pursue such studies in English, Rhetoric, Elocution, French or German, Metaphysics and Moral Philosophy and the Natural Sciences as are calculated to make them broadly educated and intelligent citizens, and not mere narrow specialists.

The course of study for the first year in this Department is arranged so as to be complete in itself. It is especially designed to meet the wants of those who cannot take the entire four years' course, but who desire to fit themselves as Land Surveyors. Students leaving at this period of the course, receive from the Faculty a certificate of their attainments.

CHEMICAL AND AGRICULTURAL COURSE.—During the last three years, the students in this course are instructed in General, Experimental, Theoretical, Organic and Applied Chemistry, Stoichiometry, Theory and Practice of Agriculture, Determinative Mineralogy, Blowpipe Analysis, and Analytical Chemistry, including the Analysis of Ores, Minerals, Coals, Waters, Technological Products, Soils, Fertilizers, Agricultural Products and Foods, Poisons, Urine and Animal Products. Instruction is also given in Spectrum Analysis, and Microscopical Examination. The course of study depends, to some extent, upon the student's future pursuit in life.

The special courses in Chemistry and Agriculture occupy two years. In the remaining studies, the courses in Engineering, Chemistry and Agriculture are the same.

Partial Students are received, and allowed to take part in

the above courses, provided their previous education is sufficient; and particular provision is made for them, especially in the Laboratory, in the application of science to Agriculture, and in Mathematics, Surveying and Draughting.

SPECIAL PROVISION IS ALSO MADE FOR STUDENTS WHO DESIRE, AFTER COMPLETING THE REGULAR COURSE OF STUDY, TO TAKE POST-GRADUATE STUDIES.

In connection with the instruction in Agriculture in this Department, the Trustees maintain an extensive model farm, designed to illustrate the principles of agriculture, and also to test by experiment the value of different systems. It is under the charge of the Professor of Agriculture, and certain days during term time will be devoted to giving upon the farm explanations of the experiments and their results, to the students of the Chemical and Agricultural courses, as well as to any farmers who may desire to avail themselves of this privilege.

MILITARY TACTICS.—In accordance with the requirements of the law, provision is made in this Department for the study of Military Tactics.

More extended information about the studies and courses in the Scientific School will be found in the Annual Report of the New Jersey State Scientific School to the Legislature of New Jersey, which will be sent to any address, on application.

3. ORGANIZATION.

This department of the College has been designated by the Legislature of New Jersey, in accordance with the law of Congress,

THE STATE COLLEGE FOR THE PROMOTION OF AGRICULTURE AND THE MECHANIC ARTS.

Under the law, a certain number of students from the State of New Jersey are received into this department of the College, and educated free of expense for tuition. This law also provides for the appointment by the Governor of a Board of Visitors, two from each Congressional District, who possess general powers of supervision and control.

The State pupils are admitted to free scholarships on the recommendation of the Superintendent of Schools in each county and on passing the required examinations. These free scholarships are distributed among the counties in proportion to their population as follows:

STATE SCHOLARSHIPS.

Atlantic,	1	Middlesex,	2
Bergen,	1	Monmouth,	2
Burlington,	3	Morris,	2
Camden,	2	Ocean,	1
Cape May,	1	Passaic,	2
Cumberland,	1	Salem,	1
Essex,	6	Somerset,	1
Gloucester,	1	Sussex,	1
Hudson,	6	Union,	2
Hunterdon,	1	Warren,	1
Mercer,	2		—
			40

Notice of examinations to be held in the several districts to fill vacancies which may exist in these Scholarships will be from time to time given by the State Superintendent of Education to the several County Superintendents.

Letters to the President or the Secretary of the Faculty, inquiring about vacancies, will receive careful attention.

COURSES OF STUDY.

Freshman Year.

Exercises during the year in Composition and Declamation.
Bible-Class, Sabbath morning.

FIRST TERM.

1. French.
2. Mathematics.—Loomis' Algebra completed; Geometry.
3. Physiology.—Dalton's; Lectures.
4. Rhetoric.—Kellogg; Lectures.
5. Draughting.—Practical Plane Geometry.
6. English Literature.—Alden's Studies in Bryant.

SECOND TERM.

1. FRENCH.
2. MATHEMATICS.—Geometry completed, Trigonometry, Plane and Spherical, Loomis.
3. NATURAL PHILOSOPHY.—Lectures.
4. ELOCUTION.—Lectures.
5. ENGLISH LITERATURE.—History of the English Language; Study of Words; Trench; Hales' Longer English Poems.
6. DRAUGHTING.—Coloring, Topographical Signs, etc.

THIRD TERM.

1. FRENCH.
2. MATHEMATICS.—Surveying, Murray.
3. BOTANY.—Gray's; Lectures.
4. ENGLISH LITERATURE.—English Authors.
5. DRAUGHTING.—Mapping, with sections, etc.

SOPHOMORE YEAR.

COURSE IN CIVIL ENGINEERING AND MECHANICS.

Exercises during the year in Composition and Declamation.
Bible-Class, Sabbath morning.

FIRST TERM.

1. RAILROAD CURVES.—Henck's Field Book.
2. DESCRIPTIVE GEOMETRY.—Church.
3. CHEMISTRY.—Barker; Lectures, with Experiments; Stoichiometry.
4. FRENCH.—Deschanel's Larger Treatise on Physics, latest Paris edition.
5. HISTORY.—Freeman's Outlines.
6. DRAUGHTING.—Practical Geometry, Solid.
7. ENGLISH LITERATURE.—Essays in Literary Criticism

SECOND TERM.

1. DESCRIPTIVE GEOMETRY.—Church; Construction of Problems.
2. ANALYTIC GEOMETRY.—Bowser.
3. CHEMISTRY.—Barker; Lectures, with Experiments.
4. FRENCH; GERMAN,—Studied with a view to use in Natural Science.
5. HISTORY.—Freeman's Outlines.
6. DRAUGHTING.—Intersection of Surfaces, etc.
7. ENGLISH LITERATURE.—Essays in Literary Criticism.

THIRD TERM.

1. ANALYTIC GEOMETRY.—Bowser, completed.
2. SHADES, SHADOWS AND PERSPECTIVE.—Church; Construction of Problems.

3. CHEMISTRY.—Barker; Lectures, with Experiments.
4. FRENCH OR GERMAN.
5. HISTORY.—Creasy's Constitutional History of England.
6. DRAUGHTING.—Linear Perspective, etc.
7. ENGLISH LITERATURE.—Essays in Literary Criticism.

SOPHOMORE YEAR.

COURSE IN CHEMISTRY AND AGRICULTURE.

Exercises during the year in Composition and Declamation.
Bible-Class, Sabbath morning.

FIRST TERM.

1. QUALITATIVE ANALYSIS.—Clowes; Lectures; Laboratory Practice.
2. CHEMISTRY.—Barker; Lectures, with Experiments; Stoichiometry.
3. FRENCH.—Deschanel's Larger Treatise on Physics, latest Paris edition.
4. HISTORY.—Freeman's Outlines.
5. DRAUGHTING.—Practical Geometry, Solid.
6. ENGLISH LITERATURE.—Essays in Literary Criticism.

SECOND TERM.

1. QUALITATIVE ANALYSIS.—Clowes; Lectures; Laboratory Practice.
2. CHEMISTRY.—Barker; Lectures, with Experiments.
3. FRENCH; GERMAN.—Studied with a view to use in Natural Science.
4. HISTORY.—Freeman's Outlines.
5. DRAUGHTING.—Intersection of Surfaces, etc.
6. ENGLISH LITERATURE.—Essays in Literary Criticism.

THIRD TERM.

1. QUALITATIVE ANALYSYS.—Clowes; Lectures; Laboratory Practice.
2. CHEMISTRY.—Barker; Lectures, with Experiments.
3. FRENCH OR GERMAN.
4. HISTORY.—Creasy's Constitutional History of England.
5. DRAUGHTING.—Linear Perspective, etc.
6. ENGLISH LITERATURE.—Essays in Literary Criticism.
7. SCIENTIFIC GERMAN.—Pinner's anorganische Chemie.

JUNIOR YEAR.

COURSE IN CIVIL ENGINEERING AND MECHANICS.

Exercises during the year in Composition and Original Declamation.
Bible-Class, Sabbath morning.

FIRST TERM.

1. MENTAL PHILOSOPHY.—Porter's Elements of Intellectual Philosophy; Lectures.
2. DIFFERENTIAL CALCULUS.—Bowser.

3. PHYSICS.—Deschanel.
4. POLITICAL ECONOMY.—Walker and Perry.
5. DRAUGHTING.—Lettering, etc.

SECOND TERM.

1, GERMAN.
2. DIFFERENTIAL CALCULUS.—Completed; INTEGRAL CALCULUS,—Bowser.
3. PHYSICS.—Deschanel.
4. CONSTITUTIONAL HISTORY OF THE UNITED STATES.—Text-book, Andrews; Lectures.
5. DRAUGHTING.—Shading, etc.

THIRD TERM.

1. ENGLISH LITERATURE.—English Authors.
2. INTEGRAL CALCULUS.—Completed.
3. ASTRONOMY.—Newcomb and Holden.
4. HISTORY OF CIVILIZATION.—Guizot.
5. DRAUGHTING.—Construction.
6. MINERALOGY.

JUNIOR YEAR.

COURSE IN CHEMISTRY AND AGRICULTURE.

Exercises during the year in Original Composition and Declamation.
Bible-Class, Sabbath morning.

FIRST TERM.

1. MENTAL PHILOSOPHY.—Porter's Elements of Intellectual Philosophy; Lectures.
2. QUANTITATIVE ANALYSIS.—Fresenius, Cairns; Lectures; Laboratory Practice.
3. CHEMISTRY.—Roscoe and Schorlemmer.
4. AGRICULTURE.—Lectures at the Farm.
5. PHYSICS.—Deschanel; Lectures, with Experiments.
6. POLITICAL ECONOMY.—Walker and Perry.
7. SCIENTIFIC GERMAN.—Pinner's anorganische Chemie.
8. DRAUGHTING.—Lettering, etc.

SECOND TERM.

1. MENTAL PHILOSOPHY.—Continued, and LOGIC.
2. QUANTITATIVE ANALYSIS.—Fresenius, Cairns; Lectures; Laboratory Practice.
3. CHEMISTRY.—Roscoe and Schorlemmer.
4. AGRICULTURE.—Lectures.
5. PHYSICS.—Deschanel; Lectures, with Experiments.
6. CONSTITUTIONAL HISTORY OF THE UNITED STATES.—Andrews; Lectures.
7. SCIENTIFIC GERMAN.—Pinner's anorganische Chemie.
8. DRAUGHTING.—Shading, etc.

THIRD TERM.

1. ENGLISH LITERATURE.—English Authors.
2. QUANTITATIVE ANALYSIS.—Fresenius, Cairns; Lectures; Laboratory Practice.
3. CHEMISTRY.—Roscoe and Schorlemmer.
4. AGRICULTURE.—Vegetable Physiology.
5. HISTORY OF CIVILIZATION.—Guizot.
6. SCIENTIFIC GERMAN.—Pinner's anorganische Chemie.
7. DRAUGHTING.—Construction.
8. MINERALOGY.

SENIOR YEAR.

COURSE IN CIVIL ENGINEERING AND MECHANICS.

Exercises during the year in Composition and Original Declamation.
Bible-Class, Sabbath morning.

FIRST TERM.

1. MECHANICS.—Wood.
2. ENGINEERING.—Mahan.
3. ORGANIC CHEMISTRY.—Pinner-Austen; Lectures, with Experiments
4. MORAL PHILOSOPHY.—Calderwood; Lectures.
5. PHYSICS.—Deschanel.
6. DRAUGHTING.—Machinery and Architecture.

SECOND TERM.

1. ENGINEERING.—Mahan.
2. MECHANICS.—Wood; Bridge-Building, Wood.
3. ORGANIC CHEMISTRY.—Pinner-Austen; Lectures; first four weeks.
4. MORAL PHILOSOPHY.—Calderwood completed; Butler's Analogy.
5. PHYSICS.—Deschanel.
6. GEOLOGY.—Dana; Lectures.
7. DRAUGHTING.—Engineering.

THIRD TERM.

1. ENGINEERING.—Bridge-Building and Railway Practice; Geodesy; Lectures.
2. GEOLOGY.—Dana; Lectures.
3. MORAL PHILOSOPHY.—Lectures on Practical Ethics and Duties of Citizenship.
4. DRAUGHTING.—Thesis.

SENIOR YEAR.

COURSE IN CHEMISTRY AND AGRICULTURE.

Exercises during the year in Composition and Original Declamation.
Bible-Class, Sabbath morning.

FIRST TERM.

1. CHEMISTRY.—Roscoe and Schorlemmer.
2. ORGANIC CHEMISTRY.—Pinner-Austen; Lectures, with Experiments.

3. PRINCIPLES OF AGRICULTURE.—Lectures; Care and Feeding of Domestic Animals; Armsby's Cattle Feeding.
4. QUANTITATIVE ANALYSIS.—Fresenius, Cairns; Lectures; Laboratory Practice.
5. MORAL PHILOSOPHY.—Calderwood's Handbook; Lectures.
6. PHYSICS.—Deschanel.
7. DRAUGHTING.
8. SCIENTIFIC GERMAN.—Pinner's anorganische Chemie.

SECOND TERM.

1. CHEMISTRY.—Roscoe and Schorlemmer.
2. AGRICULTURE.—Its Methods and Products; Johnson's 'How Crops Grow.'
3. ORGANIC CHEMISTRY.—Pinner-Austen; Lectures with Experiments.
4. QUANTITATIVE ANALYSIS.—Fresenius, Cairns; Lectures; Laboratory Practice.
5. MORAL PHILOSOPHY.—Calderwood completed; Butler's Analogy.
6. PHYSICS.—Deschanel.
7. DRAUGHTING.
8. GEOLOGY.—Dana; Lectures.
9. SCIENTIFIC GERMAN.—Pinner's anorganische Chemie.

THIRD TERM.

1. CHEMISTRY.—Roscoe and Schorlemmer.
2. AGRICULTURE.—Lectures; Johnson's 'How Crops Feed.'
3. GEOLOGY.—Dana; Lectures.
4. MORAL PHILOSOPOY.—Lectures on Practical Ethics and Duties of Citizenship.
5. QUANTITATIVE ANALYSIS.—Fresenius, Cairns; Lectures; Laboratory Practice.
6. DRAUGHTING.
7. THESIS.
8. SCIENTIFIC GERMAN.—Pinner's anorganische Chemie.

SPECIAL COURSE IN CHEMISTRY.

FIRST YEAR.

FIRST TERM.—1. Inorganic Chemistry. 2. Stoichiometry. 3. Blowpipe Analysis. 4. Qualitative Analysis. 5. French. 6. Physics. 7. Thesis.

SECOND TERM.—1. Inorganic Chemistry. 2. Qualitative Analysis. 3. Physics. 4. French. 5. Thesis.

THIRD TERM.—1. Inorganic Chemistry. 2. Qualitative Analysis. 3. French. 4. Thesis.

Journal of Travel or Observation.

SECOND YEAR.

FIRST TERM.—1. Organic Chemistry. 2. Quantitative Analysis. 3. Stoichiometry. 4. Applied Chemistry. 5. Physics. 6. German. 7. Thesis.

SECOND TERM.—1. Organic Chemistry. 2. Quantitative Analysis. 3. Applied Chemistry. 4. Physics. 5. German. 6. Thesis.

THIRD TERM.—1. Geology. 2. Applied Chemistry. 3. German.

SPECIAL COURSE IN AGRICULTURE.

FIRST YEAR.

FIRST TERM.—1. Algebra. 2. Geometrical Problems. 3. Inorganic Chemistry. 4. Physiology and Zoology. 5. Analytical Chemistry.

SECOND TERM.—1. Geometry. 2. Coloring and Topographical Drawing. 3. Analytical Chemistry. 4. Book-Keeping.

THIRD TERM.—1. Trigonometry. 2. Mapping. 3. Analytical Chemistry. 4. Botany. 5. Farm Accounts.

SECOND YEAR.

FIRST TERM.—1. Surveying. 2. Projections. 3. Physics. 4. Care and Feeding of Domestic Animals. 5. Systematic Agriculture. 6. Analytical Chemistry.

SECOND TERM.—1. Navigation and Nautical Astronomy. 2. Architectural Drawing. 3. Physics. 4. Geology. 5. How Crops Grow.

THIRD TERM.—1. Levelling and Road Making. 2. Machine Drawing. 3. Meteorology. 4. Botany. 5. How Crops Feed.

Composition and Declamation throughout the whole course.

The hours of lectures or recitations are four each day, besides work in the Chemical Laboratory.

Students who pass their regular examinations in the above subjects, will, at the close of their course, receive certificates of their attainments. And at the end of two or more years further, if they shall have pursued practical agriculture on a farm, and shall then pass satisfactory examinations in prescribed subjects on Agricultural principles and practice before a Board of Examiners of the Scientific School, they shall receive Diplomas in Agriculture.

EXAMINATIONS.

The classes in both departments are examined at the close of each term. These examinations are partly oral and partly written, and have an important bearing upon the standing of the student in his class.

Unexpected examinations at irregular intervals are held at the discretion of each instructor. The object of these examinations is to cultivate the habit of considering the relations of each day's work to what has been done before, and to stimulate effort on the part of each student to gain a comprehensive knowledge of the subjects studied. Until this system has become more familiar to the students of the College, the mark given at each such examination will have the same value as one daily recitation in that subject.

At the end of the first and third terms, the examinations of the classes of the Scientific section are held in the presence of the Board of Visitors, who then make their semi-annual visits to the Institution.

At the end of the third term, each member of the Graduating Class of the Scientific Section is required to present a thesis on some scientific subject, a copy of which is to be written out upon paper suitable for binding, and deposited in the College Library.

The final examination of the Graduating Classes is held four weeks before Commencement, from which time they are subject to such duties as are required for their preparation for Commencement.

GRADUATION.

To all members of the Graduating Class of the Classical Department, in full standing, the Trustees grant diplomas conferring the Academic degree of Bachelor of Arts.

To all members of the Graduating Class of the Scientific Department, in full standing, the Trustees grant diplomas conferring the Academic degree of Bachelor of Science.

To all members of the Graduating Class, in either Department, who have satisfactorily pursued special courses of study, a certificate is granted stating the studies pursued and the attainments made.

To those students who have pursued satisfactorily the studies of the first two years of the Scientific Course, and who desire to leave at that time, a special certificate is granted by the Faculty.

The following regulations have been adopted by the Board of Trustees in regard to the graduating exercises at Commencement:

1. The privilege of speaking at Commencement shall be open without distinction to the Classical and Scientific Sections of the Graduating Class.

2. The graduating honors shall be as follows:

FIRST HONOR—Latin Salutatory.
SECOND HONOR—English Salutatory.
THIRD HONOR—Philosophical Oration.
FOURTH HONOR—Scientific Oration.

If the first honor be awarded to a member of the Scientific Section of the Graduating Class, he shall deliver a German Salutatory.

3. The *Valedictory* shall be regarded as a *rhetorical honor only*, and shall be awarded to the best writer and speaker in his class (to be determined by his grade in composition and elocution during the Junior and Senior years), provided that

he has been a member of his class for two years, and has a general grade in scholarship among the best two-thirds.

4. Eleven other speakers shall be chosen, of whom six shall be chosen by grade in scholarship, provided, that in their grade in composition and elocution during their Junior and Senior years they are among the best two-thirds; and five shall be chosen by grade in composition and elocution during their Junior and Senior years, provided, that in their general grade in scholarship they are among the best two-thirds.

DEGREES AND POST-GRADUATE STUDIES.

Bachelors of Art and Bachelors of Science shall be entitled on application to receive three years after graduation the degrees of A. M. and M. S. respectively, on one of the following conditions:

1. On presenting a certificate of graduation from a Theological Seminary, Law School, or Medical College, or a certificate of admission to the practice of Law or Medicine.

2. On presenting evidence of other intellectual progress satisfactory to the Faculty.

3. On passing an examination before a committee of the Faculty on a prescribed course of study, and presenting a thesis to be approved by the Faculty.

The degrees of Ph.D. and D.Sc. will be conferred upon resident graduates of the College who shall pursue for two years prescribed courses of study under the direction of the Faculty.

The conditions will be made known on application.

REGULATIONS.

Morning prayers are attended in the College Chapel each morning, except Saturday and Sunday, at 8.40 o'clock.

The recitation hours extend from 9 o'clock A. M., to 1 o'clock P. M., during five days of the week.

A Bible-Class is held Sabbath morning in the College Chapel at 9.30 o'clock. All students are required to attend it.

A sermon is preached every Sabbath morning in the College Chapel at 10.30 o'clock. Students are required to be present. They are expected, also, to attend public worship in the afternoon or evening, at such place as their parents or guardians may direct.

No student is allowed to leave the city during term time without permission from his Division Officer.

Recitations are marked on a scale of 100, and the average standing of each student is made up at the end of each term, and sent to his parent or guardian. A mark at examination counts as much as one-third of the term's work up to the time of examination.

If the grade of a student in any term falls below 60 per centum of the maximum in one of his studies, he is conditioned in that study, and must be re-examined therein.

If the general average of any student in any term falls below 60 per centum of the maximum grade, his case must be acted on as the Faculty shall deem necessary.

If any student's grade in any term falls below 60 per centum of the maximum in all his studies, he loses his standing in his class, and is required to fall back a year in the course. If his work is not satisfactory after a month's trial here, he is dismissed from College.

If any student is found to be notably deficient in his daily recitations, or at the examination in any of his studies, his case is reported to the Faculty, and such action by way of discipline is taken as may be deemed necessary.

No student can be promoted to an advanced class until all his deficiencies are made up; and if he fails to make up all his deficiencies before the opening of the College year, he is required to go back a year in his course. Examinations for making up such deficiencies are held *on the day preceding the opening of College, in September.*

It is especially requested that no young man come or be sent to Rutgers College who does not have the definite wish and the

manly purpose to make the most of his time and his opportunities for improvement.

College Expenses.

FEES.

Tuition, per annum,	$75 00
Incidentals—Janitor, Fuel, &c., per annum,	8 00
Reading Room, per annum,	2 00
Admission Fee,	5 00
Graduation Fee,	7 50
Analytical Chemistry, extra, per term,	15 00

Damages are in all cases chargeable to the persons commiting them.

Of the above expenses, the admission fees are payable, on entrance, to the College Treasurer: the incidental expenses are payable at the beginning of the first term, in September; of the tuition fees one-third, viz., $25, is payable within ten days after the beginning of each term. All checks should be made payable to the Treasurer of Rutgers College.

Students in Analytical Chemistry are charged $15 additional per term, for chemicals and use of the Laboratory, which amount must be paid within ten days after the beginning of the term. They are also expected to provide themselves, at their own expense, with the necessary sets of apparatus, which may be obtained from the regular apparatus dealers, or from the Laboratory Supplies department. These sets are retained through the year, but at the end of it if the owners do not wish to keep them, they will be purchased at a fair price. If proper care has been exercised, a small discount only (about 10 per cent.) from the original cost will be made. All breakage will be charged in full.

BOARD.

Board, with furnished rooms, can be obtained in New Brunswick at the present time for $4 to $7 per week; board

without rooms for $3 to $5 per week. These prices do not include lights or fuel—which cost from $3 to $5 per term. Students having the ministry in view may obtain rooms in Hertzog Hall, in the Theological Seminary, free of charge. The rooms are heated and lighted.

The Faculty are empowered to pass such regulations relative to the number of boarders in each house as they think proper; and students shall board only at such places as are approved by them.

By combining in clubs, students are able to reduce somewhat their expense for board.

Free scholarships and pecuniary assistance may be given to young men of approved character and ability. No deserving student who has shown perseverance and capacity is allowed to give up his course for lack of assistance.

Beneficiary Aid.

1. Van Benschoten Fund.

This fund, the gift of the Rev. Elias Van Benschoten, in 1814, amounting to $20,813, was given in trust jointly to the General Synod of the Reformed Church and the Trustees of Rutgers College, to aid in the education of indigent students for the ministry. The students who enjoy the benefits of this fund are appointed by the Trustees of the College on the nomination of the General Synod of the Reformed Church, and receive $150 annually.

2. Knox Fund.

This fund, consisting of $2,000, was given by Mrs. Rebecca Knox, of Philadelphia, in 1815, to the Trustees of Rutgers College, the income from it to be expended for the support of one student in the Theological Seminary.

3. W. P. Smock Fund.

William P. Smock, of Marlboro, N. J., left by his will, to the Trustees of Rutgers College, the sum of $500, to be invested as a fund, the interest of which should be used to aid in the education of young men for the ministry. This legacy was received in 1859, and has been since that time duly employed for the purpose indicated.

4. Mandeville Fund.

In 1865 the Trustees of Rutgers College received from the executor of the will of William Mandeville, of New York City, the sum of $2,000; said sum to be invested, and the income thereof to be applied to the support of a theological student in the College.

5. Voorhees Fund.

Abraham Voorhees, of Franklin Park, N. J., bequeathed by his will, $26,000 to the Trustees of Rutgers College, the income of which is to be expended in aiding worthy young men who are candidates for the ministry, while pursuing their studies in Rutgers College. A grant of $200 per annum is made to the students thus receiving aid.

6. State Scholarships,

The law of the State of New Jersey granting to the Scientific Department of Rutgers College the Agricultural College Endowment, provides for the education of forty State students free of expense for tuition. These scholarships are distributed among the counties in proportion to their population, and the appointments to fill vacancies are made by the County Superintendent. The appointment gives the *right* to a course of instruction of four years in the Rutgers Scientific School.

7. Board of Education.

The Board of Education of the Reformed Church grants aid to young men preparing for the ministry in the denomina-

tion. The conditions are that the persons receiving aid shall have been members of some Evangelical Church one year, and at the time members of some Reformed Church. The aid may be obtained either while in College, or in the Theological Seminary.

At present the amount is $150 per annum. Information may be given by Rev. John L. See, D.D., 34 Vesey street. New York.

8. Rooms for Students.

Such rooms in Peter Hertzog Hall as may not be required for the use of the students of the Theological Seminary, are allowed to be occupied by the students of the College and Grammar School who have the ministry in view, and on the same conditions as the members of the Theological Seminary, *i. e.*, free of charge.

Prizes and Honors.

In every case where it is expected that a prize will be awarded for work done, it is distinctly announced that unless in the opinion of the examiners the work submitted is of such excellence as to merit a prize or prizes, no prize will be awarded.

All prizes and honors are open equally to members of the Classical and Scientific Departments, except in cases where prizes are specifically limited to one department by the donor. Each competitor for a prize must sign a written declaration that the essay or other work offered by him is his original and unaided work.* They are as follows:

1. Suydam Prize for Composition.

This prize, the gift of James Suydam, Esq., is a gold medal of the value of thirty dollars, or that sum of money, and is

* The names of Examining Committees will be published in next year's Catalogue, after the Prizes shall have been awarded.

to be given to the member of the Senior Class who shall write the best English Composition on the subject assigned to the class by the Professor of Rhetoric. Competitors must hand in their compositions on or before April 18th. The student to whom the prize is awarded must copy his composition upon paper furnished by the College, and present it for preservation in the Library before he can receive the prize.

Subject for 1883: "Has Modern Science destroyed the Validity of the Argument from Design?"

2. Suydam Prize in Natural Science.

This prize, the gift of James Suydam, Esq., is a gold medal of the value of thirty dollars, or that sum in money, and is to be awarded to the member of the Senior Class who shall have made the greatest attainments in Natural Science. The examination is upon all the subjects of Natural Science in the College course, and is conducted by the Professors in those subjects. The questions and answers are required to be written.

3. Brodhead Classical Prize.

This prize is the gift of Rev. Dr. Jacob Brodhead and his son, J. Romeyn Brodhead, LL.D. It is the interest on $500, *i. e.*, thirty dollars, to be given to the best Senior Classical scholar on the following conditions;

First, "That those who offer themselves as candidates for it shall be subjected to a special examination, at a time to be fixed by the Faculty near to the close of the Senior year."

Second. "That the subject of the examination be a passage or play of some Classical author (not included in the College programme of Studies), to be selected by the Classical Professors, and to be announced at least one month before the time fixed for the examination."

Third, "A subject for an essay shall be announced at the same time, and the essay shall be given in on the day of examination."

Fourth, "Both the examination and the essay shall be taken into account in the adjudication of the prize. A law

copy of the essay of the Prize man shall be handed in by him before the medal is put into his hands, to be preserved among the archives of College."

Subject for examination for 1884: "Plato's Republic," Books V. VI. VII.

Subject for essay: "Plato's Doctrine of Ideas (to be written in Greek).

If four, or more, contend, a second prize of $25 will be bestowed on the second in excellence by the Professor of Greek.

4. Bradley Mathematical Prize.

This prize is given by Hon. Joseph P. Bradley, LL.D., and consists of a valuable Mathematical work, which is to be bestowed on the student of the Senior Class who shall present the best solution of a set of Mathematical problems to be proposed to the class by the Professor of Mathematics before the close of the second term.

5. Myron W. Smith Prizes.

These prizes were founded by Lyndon A. Smith, M.D., of Newark, in the name of his son, Adjutant Myron W. Smith, who was a graduate of the College, and who gave his life in the late war to the cause of his country. They consist of the interest of $500, proportionately appropriated to two medals, one of gold and the other of silver, which are to be awarded respectively to the best and second best speakers of the Sophomore Class. Only those students who shall have pursued, in the College, the regular studies of the classical or a full scientific course from the beginning of the Freshman year, shall be allowed to contend for these prizes.

The competion for these medals shall take place before a committe of the Faculty, when the best and second best speakers shall be selected, to whom the medals shall be awarded, and six others shall receive honorable mention in their order of excellence. The medals shall be presented at Commencement.

6. Tunis Quick Prize in Spelling and English Grammar.

This prize, the gift of P. Vanderbilt Spader, Esq., of New Brunswick, is the income of $300, at 6 per centum, and is to be presented to that member of the Freshman Class, Classical or Scientific, who shall pass the best examination in Spelling and English Grammar.

The examination is to be conducted in writing by the Professor of English Literature, at as early a day as convenient in the second College term, and under such regulations as the Faculty may from time to time establish.

The prize may be withheld from any or all papers offered, either for want of merit or for failure of proper competition. In case the prize be not awarded in any year, it is to be offered one year later to the members of the same class, on the same conditions as at first.

All regulations as to time, manner and conditions of awarding the prize are subject to change by the Board of Trustees.

7. Peter Spader Prizes in Modern History.

These prizes, the gift of P. Vanderbilt Spader, Esq., are two in number, the income of $400 and $300, respectively, at 6 per centum, and are to be awarded to those members of the Sophomore Class, Classical or Scientific, who shall present the best essays on some subject in Modern History, selected by the Professor of History, with the approval of the Faculty.

The subject is to be announced at the close of the Freshman year, and the competing essays are to be handed in on or before the third Monday in the third term of the Sophomore year.

The committee annually appointed by the Faculty may decline to award these prizes, or either of them, for want of merit in the essays, or for failure of proper competition. In case the prizes be not awarded in any year, they are to be offered one year later to the members of the same class, on the same conditions as at first.

Successful essays are to be copied on paper selected by the Faculty, and deposited in the College Library, before the writer receives his prize.

All regulations as to time, manner, and conditions of awarding the prizes are subject to change by the Board of Trustees.

Subject for 1884: The Rise and Growth of Prussia as a Continental Power.

The second of these prizes was not awarded in the Class of 1883. It is offered the present year to the same class. Subject: The French in North America.

8. Appleton Memorial Prize in Moral Philosophy.

This prize was founded by a gift of $500, from the Rev. Samuel E. Appleton, D.D., in the name of his mother, Mrs. Elizabeth Appleton. It consists of $30, the interest of the above sum, and will be given "to the member of the Senior Class who shall pass the best examination in Moral Philosophy." The examination this year will be on "Calderwood's Handbook of Moral Philosophy," and will be written.

9. William Wilson Prize in Mental Philosophy.

This prize consists of $25, given by the Rev. F. F. Wilson, and the Rev. P. Q. Wilson, in honor of their father, Captain William Wilson, of the New Jersey State Militia. It will be open to competition for students in both the Classical and Scientific Sections who are pursuing the study of Mental Philosophy, and will be bestowed on the one who shall pass the best examination on some work assigned by the Professor of Metaphysics.

Work for 1884: "Berkeley's Principles of Knowledge, Dr. Krauth's Edition, pp. 72–122, and 193–281."

10. Wm. H. Van Doren Prize for the best Essay on Christian Missions.

This prize consists of $20, the gift of the Rev. William H. Van Doren, D.D. It is open to competition for members of the Senior and Junior classes in both Sections; and for members of the Theological Seminary.

11. Junior Exhibition.

Eight members of the Junior Class are chosen each year, in equal numbers from the Peithessophian and Philoclean Literary Societies, who deliver original speeches at an exhibition held on the Tuesday evening preceding Commencement. The selection is made by a committee of three persons, of whom one is chosen by each Society, and a third by the Faculty, and is based upon relative excellence as writers and speakers.

12. Hart Prize in English Literature.

A prize of $25 is offered to the members of the Sophomore Class for the best essay upon a subject in Literature, assigned by the Professor of that department, and awarded by a committee appointed by him.

Subject for 1884: "Dickens and Thackeray."

Library and Museum.

1. Library.

The Library of the College is open for consultation during each term, as follows: on Mondays, Tuesdays, Wednesdays, Thursdays and Fridays, from 8 to 8.40 A.M., and from 12 M. to 12.30 P.M., and from 2 P.M. to 4.30 P.M.; on Saturdays from 9 A.M. to 12 M. Students are allowed free access to the books, and are encouraged to become familiar with the proper methods of using a library for literary work. The collection of books has received considerable additions during the past year, and no effort will be spared to make it what the Institution requires. Donations to this object, either in money or books, are earnestly solicited.

By the gift of a permanent fund of $1,000 from James Suydam, Esq., the Library is supplied with the leading learned periodical publications in the various departments.

2. Museum and Apparatus.

The Trustees solicit contributions from the friends of the College to the collections of the Museum. It is their wish to increase greatly the present valuable collections by additions in all departments. Donations of specimens illustrating Geology, Mineralogy, Natural History, Numismatics and Antiquities, and the Industrial Arts, are earnestly requested. Ample rooms are provided in the new Geological Hall for the proper preservation and display of such specimens. By the kindness of numerous friends, suitable cases have been provided to receive the collections which the College already possesses, and they are now being arranged as rapidly as circumstances wlll allow.

The apparatus of the College for illustrating the various branches of Science, is extensive and serviceable. It has been obtained as the wants of the classes demanded, and comprises many of the recent additions to Chemical and Philosophical apparatus. The students in Analytical Chemistry are provided with the requisite facilities for making analyses. The arrangements for these departments in the building recently crected are of the most ample and convenient description.

REGISTER.

1. SOPHOMORE ORATORS.

G. W. HART, JR., 1st Prize, ... Metuchen.
W. E. FLORANCE, 2d Prize, ... New Brunswick.

The following are named in the order of their appointment according to merit:

W. BOOCOCK, ... Coxsackie, N. Y.
E. K. LOSEE, ... Upper Red Hook, N. Y.
F. S. SCUDDER, ... Upper Red Hook, N. Y.
A. VERMEULE, JR., ... New Brunswick.
L. A. VOORHEES, ... New Brunswick.

2. JUNIOR EXHIBITION.

ORATORS FOR 1883.

Philoclean Society.		*Peithessophian Society.*	
W. P. BRUCE, . . .	Andes, N. Y.	G. DAVIS, . .	White House,
B. E. DICKHAUT, .	E. New York.	W. G. LUDLOW,	New Brunswick.
F. S. SMITH, . . .	Jersey City.	J. G. MEYER, .	Matteawan, N. Y.
J. A. THOMSON,	New Kingston, N. Y.	F. V. ROGERS,	Davenport, Iowa.

3. GRADUATING EXERCISES, JUNE 21, 1883.

HONORS.

W. H. S. DEMAREST,	New Brunswick,	*Latin Salutatory*,	1st Honor.
H. W. BEEBE,	New Brunswick,	*English Salutatory*.	2d Honor.
G. Z. COLLIER,	New Brunswick,	*Philosophical Oration*,	3d Honor.
G. M. LILBURN,	Haverstraw, N. Y.,	*Scientific Oration*,	4th Honor.
J. H. BRANDOW,	Coxsackie, N. Y.,	*Valedictory*,	Rhetorical Honor.

ORATIONS.

G. B. M. BELL,	New Brunswick.	J. L. SCHENCK,	Neshanic.
J. T. BERGEN,	Flatlands, N. Y.	J. W. SCUDDER,	Brooklyn, N. Y.
F. W. CUTLER,	Morristown.	A. F. SKINNER,	Belleville.
G. E. JENKINS,	Mine Hill.	D. D. SUTPHEN,	Newark.
H. M. PETERS,	Newark.	H. J. WARD,	Middletown, N. Y.
H. V. PALMER,	Poughkeepsie, N. Y.		

MASTER'S ORATION.

GILBERT D. B. HASBROUCK, ESQ., Port Ewen, N. Y.

4. PRIZES AWARDED.

GENERAL PRIZES.

Van Doren Prize for Essay on Missions, . .	GEORGE Z. COLLIER.

SENIOR PRIZES.

Brodhead Prize for Classics, ...	J. WATERBURY SCUDDER.
Suydam Prize for Natural Science, . . .	GEORGE Z. COLLIER.
Suydam Prize for Composition, . . .	J. WATERBURY SCUDDER.
Bradley Prize for Mathematics, ...	GEORGE E. JENKINS.
Appleton Prize for Moral Philosophy, . .	WM. H. S. DEMAREST.
Bowser Prize for Best Thesis, ...	GEORGE E. JENKINS.

JUNIOR PRIZES.

Wilson Prize for Mental Philosophy, . .	CYRUS W. F. SPROUL.
Bright Junior Orator Prize, ...	WILLIAM G. LUDLOW.

SOPHOMORE PRIZES.

Peter Spader Prize for Modern History (1st), .	W. EDWIN FLORANCE.
Hart English Literature Prize, ...	JOHN W. ALLEN.
Myron W. Smith Prize for Declamation (1st), .	GEORGE W. HART, JR.
Myron W. Smith Prize for Declamation (2d), .	W. EDWIN FLORANCE.

FRESHMAN PRIZE.

Quick Prize for Grammar and Spelling, . .	JOHN DE WITT, JR.

5. Class Day Exercises.

IN THE CHAPEL.

Oration,	W. H. S. Demarest,	New Brunswick.
Poem,	J. Tallmadge Bergen,	Flatland, L. I.
Class History,	J. Waterbury Scudder,	Brooklyn, N. Y.
Class Prophecy,	D. Dunbar Sutphen,	Newark.
Presentation of Class Mementoes,	George Z. Collier,	New Brunswick.
Address to Undergraduates,	Henry W. Beebe,	New Brunswick.
Presentation of Class Memorial to the College,	Alfred F. Skinner,	Belleville.

ON THE CAMPUS.

Planting of the Ivy,	Frederick P. Hill,	East New Brunswick.
Ivy Ode,	H. Judd Ward,	Middleville, N. Y.
Pipe Oration,	William C. Miller,	Albany, New York.
Address to the President,	Frederick W. Cutler,	Morristown.

6. Alumni Association.

OFFICERS FOR THE YEAR 1883–84.

Prof. T. S. Doolittle, D.D., Class of '59,	President.
Judge James R. Hoagland, Class of '52,	Vice Presidents.
W. H. Vredenburgh, Esq., Class of '59,	
Rev. J. A. Debaun, D.D., Class of '52,	
George C. Churchill, Esq., Class of '51,	
Prof. I. E. Hasbrouck, Class of '65,	Treasurer.
Rev. John L. See, D.D., Class of '41,	Secretary.
Irving S. Upson, Class of '81,	Biographer.

ORATOR FOR 1884.

Rev. John K. Allen,	Primarius.
Rev. W. E. Griffis,	Secundus.

VEDDER LECTURER.

For 1884—Rev. Cornelius Van Santvoord, D.D.,	Kingston, N. Y.
For 1885—Rev. Edward B. Coe, D.D.,	New York City.

Former students of the College, whether graduates or not, are earnestly requested to keep the College informed of any change in their address or occupation, of works published, offices held, etc., both to facilitate the sending of the annual catalogue, and to furnish material for general catalogues, when printed. Catalogues of the College, etc., will be sent to alumni or friends of the College who send to the Secretary their addresses, for this purpose.

It is now proposed to issue the new edition of the general catalogue as soon as sufficient data can be obtained.

It is desired to secure for the Library a complete set of all the publications issued by the College or relating to it, or written or compiled by any one in connection with it, whether periodical or occasional. A complete collection of *Rutgersensia* would be of great value to the College and its friends.

RUTGERS GRAMMAR SCHOOL.

[RE-ORGANIZED, WITH A NEW HEAD-MASTER.]

This School, which is under the control of the Board of Trustees and in intimate relation with the College, affords excellent facilities for preparing boys to enter the Classical and Scientific departments of the College. Special care is taken to drill the pupils thoroughly in the principles of Mathematics, the Languages, Natural Sciences and kindred subjects. Its work, however, is not restricted to candidates for College. It has courses of study adapted to fit young men for business life, or to give them a general education as good as the best Academies offer. Exceptional attention will be paid to everything that may increase the efficiency and usefulness of this institution. The friends of the College, who have sons or wards to educate, will do well to examine carefully into its merits. Full information will be given upon application to the Head-Master, E. T. TOMLINSON, A. M.

6. Tunis Quick Prize in Spelling and English Grammar.

This prize, the gift of P. Vanderbilt Spader, Esq., of New Brunswick, is the income of $300, at 6 per centum, and is to be presented to that member of the Freshman Class, Classical or Scientific, who shall pass the best examination in Spelling and English Grammar.

The examination is to be conducted in writing by the Professor of English Literature, at as early a day as convenient in the second College term, and under such regulations as the Faculty may from time to time establish.

The prize may be withheld from any or all papers offered, either for want of merit or for failure of proper competition. In case the prize be not awarded in any year, it is to be offered one year later to the members of the same class, on the same conditions as at first.

All regulations as to time, manner and conditions of awarding the prize are subject to change by the Board of Trustees.

7. Peter Spader Prizes in Modern History.

These prizes, the gift of P. Vanderbilt Spader, Esq., are two in number, the income of $400 and $300, respectively, at 6 per centum, and are to be awarded to those members of the Sophomore Class, Classical or Scientific, who shall present the best essays on some subject in Modern History, selected by the Professor of History, with the approval of the Faculty.

The subject is to be announced at the close of the Freshman year, and the competing essays are to be handed in on or before the third Monday in the third term of the Sophomore year.

The committee annually appointed by the Faculty may decline to award these prizes, or either of them, for want of merit in the essays, or for failure of proper competition. In case the prizes be not awarded in any year, they are to be offered one year later to the members of the same class, on the same conditions as at first.

Successful essays are to be copied on paper selected by the Faculty, and deposited in the College Library, before the writer receives his prize.

All regulations as to time, manner, and conditions of awarding the prizes are subject to change by the Board of Trustees.

Subject for 1884: The Rise and Growth of Prussia as a Continental Power.

The second of these prizes was not awarded in the Class of 1883. It is offered the present year to the same class. Subject: The French in North America.

8. Appleton Memorial Prize in Moral Philosophy.

This prize was founded by a gift of $500, from the Rev. Samuel E. Appleton, D.D., in the name of his mother, Mrs. Elizabeth Appleton. It consists of $30, the interest of the above sum, and will be given "to the member of the Senior Class who shall pass the best examination in Moral Philosophy." The examination this year will be on "Calderwood's Handbook of Moral Philosophy," and will be written.

9. William Wilson Prize in Mental Philosophy.

This prize consists of $25, given by the Rev. F. F. Wilson, and the Rev. P. Q. Wilson, in honor of their father, Captain William Wilson, of the New Jersey State Militia. It will be open to competition for students in both the Classical and Scientific Sections who are pursuing the study of Mental Philosophy, and will be bestowed on the one who shall pass the best examination on some work assigned by the Professor of Metaphysics.

Work for 1884: "Berkeley's Principles of Knowledge, Dr. Krauth's Edition, pp. 72–122, and 193–281."

10. Wm. H. Van Doren Prize for the best Essay on Christian Missions.

This prize consists of $20, the gift of the Rev. William H. Van Doren, D.D. It is open to competition for members of the Senior and Junior classes in both Sections; and for members of the Theological Seminary.

11. Junior Exhibition.

Eight members of the Junior Class are chosen each year, in equal numbers from the Peithessophian and Philoclean Literary Societies, who deliver original speeches at an exhibition held on the Tuesday evening preceding Commencement. The selection is made by a committee of three persons, of whom one is chosen by each Society, and a third by the Faculty, and is based upon relative excellence as writers and speakers.

12. Hart Prize in English Literature.

A prize of $25 is offered to the members of the Sophomore Class for the best essay upon a subject in Literature, assigned by the Professor of that department, and awarded by a committee appointed by him.

Subject for 1884: "Dickens and Thackeray."

Library and Museum.

1. Library.

The Library of the College is open for consultation during each term, as follows: on Mondays, Tuesdays, Wednesdays, Thursdays and Fridays, from 8 to 8.40 A.M., and from 12 M. to 12.30 P.M., and from 2 P.M. to 4.30 P.M.; on Saturdays from 9 A.M. to 12 M. Students are allowed free access to the books, and are encouraged to become familiar with the proper methods of using a library for literary work. The collection of books has received considerable additions during the past year, and no effort will be spared to make it what the Institution requires. Donations to this object, either in money or books, are earnestly solicited.

By the gift of a permanent fund of $1,000 from James Suydam, Esq., the Library is supplied with the leading learned periodical publications in the various departments.

2. Museum and Apparatus.

The Trustees solicit contributions from the friends of the College to the collections of the Museum. It is their wish to increase greatly the present valuable collections by additions in all departments. Donations of specimens illustrating Geology, Mineralogy, Natural History, Numismatics and Antiquities, and the Industrial Arts, are earnestly requested. Ample rooms are provided in the new Geological Hall for the proper preservation and display of such specimens. By the kindness of numerous friends, suitable cases have been provided to receive the collections which the College already possesses, and they are now being arranged as rapidly as circumstances wlll allow.

The apparatus of the College for illustrating the various branches of Science, is extensive and serviceable. It has been obtained as the wants of the classes demanded, and comprises many of the recent additions to Chemical and Philosophical apparatus. The students in Analytical Chemistry are provided with the requisite facilities for making analyses. The arrangements for these departments in the building recently erected are of the most ample and convenient description.

Calendar.

1884.

December 23,	Tuesday: First Session ends. Vacation.

1885.

January 7,	Wednesday: Second Session begins.
January 29,	Day of Prayer for Colleges.
April 7,	Tuesday: Second Session ends. Vacation.
April 15,	Wednesday: Third Session begins.
June 14,	Sunday: Baccalaureate Sermon.
June 15–16,	Monday (10 A. M.) and Tuesday: Examinations for admission.
June 16,	Tuesday: Meeting of Alumni; Exercises of the Literary Societies; Junior Exhibition in the Evening.
June 17,	Wednesday: Commencement. Vacation begins.
September 16,	Wednesday: First Session begins; recitations.
September 16,	Wednesday, 9 A. M.: Examinations for admission.
September 16,	Wednesday, 9 A. M.: Examinations for removal of June Conditions.
December 23,	Wednesday: First Session ends. Vacation.

1886.

January 7,	Thursday: Second Session begins.

TRUSTEES.

EX-OFFICIO.

HIS EXCELLENCY, LEON ABBETT, ... JERSEY CITY.

Governor of the State of New Jersey.

HON. MERCER BEASLEY, LL.D., ... TRENTON.

Chief Justice of the State of New Jersey.

HON. JOHN P. STOCKTON, ... TRENTON.

Attorney General of the State of New Jersey.

BY ELECTION.

Names.	*Residences.*	*Date of Election.*
MERRILL EDWARDS GATES, PH.D., LL.D., *President of the College.*	NEW BRUNSWICK,	March 7, 1882.
REV. GUSTAVUS ABEEL, D.D.,	Newark,	July 22, 1845.
REV. T. E. VERMILYE, D.D., LL.D.,	New York City,	July 24, 1849.
HON. JOHN HOPPER,	Paterson,	July 22, 1851.
HON. F. T. FRELINGHUYSEN, LL.D.,	Washington, D. C.,	July 21, 1851.
MAURICE E. VIELE, ESQ.,	Albany, N. Y.,	July 27, 1853.
REV. DAVID D. DEMAREST, D.D.,	New Brunswick,	April 13, 1858.
HON. JOSEPH P. BRADLEY, LL.D.,	Washington, D. C.,	June 29, 1859.
REV. FRANCIS M. KIP, D.D.,	Tompkinsville, S. I.,	Oct. 16, 1860.
HENRY L. JANEWAY, ESQ.,	New Brunswick,	April 8, 1862.
JOHNSON LETSON, ESQ.,	New Brunswick,	June 16, 1863.
REV. GARRET C. SCHANCK,	Marlboro,	April 11, 1866.
STAFFORD R. W. HEATH, ESQ.,	Newark,	April 11, 1866.
REV. TALBOT W. CHAMBERS, D.D.,	New York City,	June 17, 1868.

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1884.

December 23,	Tuesday: First Session ends. Vacation.

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HON. F. T. FRELINGHUYSEN, LL.D.,	Washington, D. C.,	July 21, 1851.
MAURICE E. VIELE, ESQ.,	Albany, N. Y.,	July 27, 1853.
REV. DAVID D. DEMAREST, D.D.,	New Brunswick,	April 13, 1858.
HON. JOSEPH P. BRADLEY, LL.D.,	Washington, D. C.,	June 29, 1859.
REV. FRANCIS M. KIP, D.D.,	Tompkinsville, S. I.,	Oct. 16, 1860.
HENRY L. JANEWAY, ESQ.,	New Brunswick,	April 8, 1862.
JOHNSON LETSON, ESQ.,	New Brunswick,	June 16, 1863.
REV. GARRET C. SCHANCK,	Marlboro,	April 11, 1866.
STAFFORD R. W. HEATH, ESQ.,	Newark,	April 11, 1866.
REV. TALBOT W. CHAMBERS, D.D.,	New York City,	June 17, 1868.

Names.	*Residences.*	*Date of Election.*
Rev. Joachim Elmendorf, D.D.,	Poughkeepsie, N. Y.,	April 14, 1869.
Rev. Paul D. Van Cleef, D.D.,	Jersey City,	April 14, 1869.
James W. Schermerhorn, Esq.,	New York City,	Feb. 7, 1871.
William C. Fowler, Esq.,	Brooklyn, N. Y.,	April 13, 1871.
Samuel Sloan, Esq.,	New York City,	June 20, 1871.
Hon. George C. Ludlow,	New Brunswick,	June 17, 1873.
Hon. William A. Newell,	Olympia, W. T.,	June 17, 1873.
Rev. Isaac S. Hartley, D.D.,	Utica, N. Y.,	June 17, 1873.
S. O. Vanderpoel, M.D., LL.D.,	New York City,	June 22, 1875.
Theodoric R. Westbrook, LL.D.,	Kingston, N. Y.,	Oct. 26, 1875.
Rev. William Ormiston, D.D.,	New York City,	June 20, 1876.
Rev. John Gaston, D.D.,	Passaic,	June 20, 1876.
Henry W. Bookstaver, Esq.,	New York City,	June 20, 1876.
Robert F. Ballantine, Esq.,	Newark,	June 20, 1876.
Rev. William Rankin Duryee, D.D.,	Jersey City,	March 5, 1878.
Rev. William J. R. Taylor, D.D.,	Newark,	June 18, 1878.
Rev. Abraham R. Van Nest, D.D.,	New York City,	Oct. 29, 1878.
John Lefferts, Esq.,	Flatbush, L. I.,	Oct. 29, 1878.
William Clark, Esq.,	Newark,	Oct. 29, 1878.
Hon. George H. Sharpe,	Kingston, N. Y.,	March 4, 1879.
David Bingham, Esq.,	East Orange,	March 7, 1882.
George C. Churchill, Esq.,	Utica, N. Y.,	June 19, 1883.
Tunis G. Bergen, Ph.D.,	Brooklyn, N. Y.,	June 19, 1883.
Henry R. Baldwin, M.D.,	New Brunswick,	June 17, 1884.

Rev. DAVID D. DEMAREST, D.D., ... New Brunswick.

Secretary of the Board.

JOHN C. ELMENDORF, Esq., . . . New Brunswick.

Treasurer.

Office—39 Albany Street.

James Thomas, *Janitor.*

FACULTY.

MERRILL EDWARDS GATES, PH.D., LL.D.,
PRESIDENT,
THEODORE FRELINGHUYSEN *Professor of Moral Philosophy.*

REV. WILLIAM HENRY CAMPBELL, D.D., LL.D.,
(EX-PRESIDENT,)
Professor of the Evidences of Christianity.

GEORGE H. COOK, LL.D.,
VICE-PRESIDENT,
Professor of Geology and Agriculture.

*REV. DE WITT TEN BROECK REILLY, A.M.,
Professor of the Latin Language and Literature.

REV. T. SANDFORD DOOLITTLE, D.D.,
COLLEGIATE CHURCH *Professor of Rhetoric, Logic, and Mental Philosophy.*

REV. JACOB COOPER, D.D., D.C.L.,
Professor of the Greek Language and Literature.

JOHN CONOVER SMOCK, A.M., PH.D.,
†*Professor of Mining and Metallurgy.*

REV. CARL MEYER, D.D.,
Professor of Modern Languages.

*At present, United States Consul at Athens, Greece.
†The duties of this professorship are not at present discharged; the chair awaits endowment.

FRANCIS CUYLER VAN DYCK, A.M.,

Professor of Physics and Experimental Mechanics.

EDWARD A. BOWSER, C.E., LL.D.,

Professor of Mathematics and Engineering.

Professor of Mathematics and Graphics.

GEORGE BENJAMIN MERRIMAN, A.M.,

Professor of Mathematics and Astronomy.

PETER TOWNSEND AUSTEN, PH.D., F.C.S.,

Professor of General and Applied Chemistry.

REV. CHARLES EDWARD HART, D.D.,

Professor of the English Language and Literature.

FRANCIS AUGUSTUS WILBER, M.S.,

Adjunct Professor of Analytical Chemistry.

AUSTIN SCOTT, PH.D.,

VOORHEES *Professor of History, Political Economy, and Constitutional Law.*

FRANK LORING DODDS, 2d Lieutenant 9th U. S. Infantry,

Professor of Military Science and Tactics, and of Graphics.

EDGAR S. SHUMWAY, A.M.,

Adjunct Professor of Latin, in Charge of the Department.

LOUIS BEVIER, PH.D.,

Instructor in French.

IRVING STRONG UPSON, A.M.,

Librarian.

The names of the Faculty are arranged according to seniority of appointment, with the exception of the first two.

CATALOGUE OF STUDENTS

FOR THE YEAR BEGINNING SEPTEMBER 20, 1884.

GRADUATE STUDENTS.

Names.	*College.*	*Residences.*	*Rooms.*
THEODORE B. BOORAEM, JR.,	Rutgers,	New Brunswick,	54 Bayard St.
History and Constitutional Law.			
JOHN WILLIAM MCKELVEY,	Rutgers,	Jersey City.	
Chemistry.			
CHARLES EDWARD PATTISON,	Rutgers,	Metuchen.	
Electricity.			
FRANKLIN STODDART SMITH,	Rutgers,	Jersey City.	
Chemistry.			
ALAN H. STRONG,	Rutgers,	New Brunswick,	Hamilton St.
History and Constitutional Law.			
JAMES H. VAN CLEEF,	Rutgers,	New Brunswick,	Hamilton St.
History and Constitutional Law.			
JOHN S. VOORHEES,	Rutgers,	New Brunswick,	New Brunswick.
History and Constitutional Law.			
FREDERICK WEIGEL,	Rutgers,	New Brunswick,	New Brunswick.
History and Constitutional Law.			
HOWARD MCSHERRY, ESQ.,*		New Brunswick.	
H. B. WILLIS, ESQ.,*		New Brunswick.	

*Engaged in the practice of their profession, and pursuing special studies with the Graduate Class in History and Constitutional Law.

SENIOR CLASS.

Classical Section.

Names.	*Residences.*	*Rooms.*
John Mitchell Allen,	Annandale,	12 Hertzog Hall.
Morris Norton Bemus,	Jamestown, N. Y.,	96 George St.
Louis Bishop,	Trenton,	123 George St.
William Henry Boocock,	Coxsackie, N. Y.,	49 Hertzog Hall.
W. Edwin Florance,	New Brunswick,	128 Neilson St.
Edwin Knickerbocker Losee,	Upper Red Hook, N. Y.,	27 Bayard St.
Frank Seymour Scudder,	Upper Red Hook, N. Y.,	27 Bayard St.
Adrian Vermeule, Jr.,	New Brunswick,	Terrace Hill.
Louis Augustus Voorhees,	New Brunswick,	75 Carroll Place.

Scientific Section.

Names.	*Residences.*	*Rooms.*
Asher Atkinson,	New Brunswick,	Hardenbergh St.
William Henry Barnes,	E. Hampton, N. Y.,	75 George St.
Charles Deshler,	New Brunswick,	College Ave.
George William Hart, Jr.,	Metuchen,	Metuchen.
Arthur Coyle Payne,	College Point, L. I.,	Metuchen.
*John George Tait,	Metuchen,	Metuchen.
Louis Frederick Ruf,	Freehold,	56 Albany St.
Frank Van Brakle,	Keyport,	9 Paterson St.

*Partial, not a candidate for a degree.

JUNIOR CLASS.

Classical Section.

Names.	*Residences.*	*Rooms.*
George VanNest Baldwin,	New Brunswick,	103 George St.
Lewis Birge Chamberlain,	Millbrook, N. Y.,	29 Hertzog Hall.
Frederick Deshler,	New Brunswick,	College Ave.
Edward Wilkins Dewey,	Fort Plain, N. Y.,	72 Bayard St.
John De Witt, Jr.,	New Brunswick,	Seminary Place.
Warren Hardenbergh Dixon,	Jersey City,	27 Morris St.
Charles Baylis Ludlow,	New Brunswick,	81 Albany St.
De Witt Van Dyke Reiley,	New Brunswick,	E. New Brunswick.
Aaron Longstreet Stillwell,	Somerville,	57 Albany St.
Peter Stillwell,	White House,	57 Albany St.
Thomas Alfred Stoddart,	Rahway,	Rahway.
George Edwin Talmage,	Amoy, China,	31 Hertzog Hall.
*William Spader Willis,	New Brunswick,	Hertzog Hall.

Scientific Section.

Names.	*Residences.*	*Rooms.*
Louis David Blauvelt,	New York City,	123 George St.
Chas. Sanderson Cathcart,	New Brunswick,	62 Welton St.
Elmore De Witt,	Wallkill, N. Y.,	83 Bayard St.
Clarence M. Du Bois,	Bridgeton,	83 Bayard St.
John Moyer Farley,	Fort Plain, N. Y.,	69 Albany St.
William Hockman,	Red Bank,	79 George St.
Montfort Matthews,	Bound Brook,	Bound Brook.
John Howard Porter,	Bordentown,	Bordentown.
Joseph Borden Reynolds,	Bordentown,	Bordentown.
Frank W. Ribble,	East Millstone,	East Millstone.
George Anthony Viehman,	New Brunswick,	38 Dennis St.
William H. Waldron,	New Brunswick,	143 George St.

*Partial course.

SOPHOMORE CLASS.

Classical Section.

Names.	*Residences.*	*Rooms.*
William Samuel Bishop,	East Orange,	55 Bayard St.
Stephen Dubois Demarest,	New Brunswick,	Seminary Place.
Albert Benjamin Herman,	Warsaw, N. Y.,	23 Hertzog Hall.
William Pierson Merrill,	New Brunswick,	Raritan Ave.
Henry Holmes Palmer,	New Brunswick,	College Ave.
Franklin Ambler Pattison,	Metuchen,	Metuchen.
Frank J. Sagendorph,	Hudson, N. Y.,	78 Bayard St.
Asa Wynkoop,	Catskill, N. Y.,	78 Bayard St.

Scientific Section.

Names.	*Residences.*	*Rooms.*
Walter Whipple Batchelder,	Albany, N. Y.,	57 Albany St.
Warren James Brodie,	Geneseo, N. Y.,	57 Albany St.
Thurston Walker Challen,	New Brunswick,	Hamilton St.
John William Clark,	Newark,	Newark.
Allen Price Ford,	Crosswicks,	78 George St.
Lawrence Edward McCabe,	East Hampton, N. Y.,	61 New St.
Harry Joseph March,	New Brunswick,	Somerset St.
David Trumbull Marshall,	Metuchen,	Metuchen.
Frederick Schuyler Nelson,	Piscataway,	New Brunswick.
Harry Atwater Smith,	Raritan,	96 George St.
Harold Tait,	Metuchen,	Metuchen.
Burton Morse Tremper,	Kingston, N. Y.,	96 George St.
*Martin G. Van Slyke,	Coxsackie,	57 Albany St.
Samuel Herbert Voorhees,	Princess Anne, Md.,	71 Carroll Place.
Isaac Lewis Winckler,	New Brunswick,	Hardenbergh St.

*Special course.

FRESHMAN CLASS.

Classical Section.

Names.	*Residences.*	*Rooms.*
Melville Day Brandon,	New Brunswick,	Hamilton St.
*Arthur J. Collier,	Coxsackie, N. Y.,	Hamilton St.
Frederick Hutchison Cook,	Bound Brook,	Bound Brook.
Samuel De Witt Drury,	Rhinebeck, N. Y.,	Hamilton St.
Richard Jones Geisinger,	Bridgeton,	78 Bayard St.
Baldwin Hasbrouck,	Bound Brook,	Bound Brook.
Louis Brodhead Hasbrouck,	Bound Brook,	Bound Brook.
Robert Rives La Monte,	Bound Brook,	Hamilton St.
Frank Lawyer Mayham,	Perth Amboy,	Albany and George Sts.
Edward William Newell,	New Brunswick,	146 George St.
Harmon Bay Niver,	Ancram Lead Mines, N. Y.,	Hamilton St.
Frederick William Parker,	New Brunswick,	College Ave.
Sherman Grant Pitt,	Crary's Mills, N. Y.,	59 French St.
Henry Livingston Rupert,	East Millstone,	East Millstone.
Elias Wortman Thompson,	Readington,	33 Hertzog Hall.
Maurice Joseph Thompson,	New York, N. Y.,	7 New St.
Edward Breck Vaill,	Bound Brook,	Bound Brook.
John Howard Voorhees,	Middlebush,	Middlebush.
Oscar M. Voorhees,	Bedminster,	College Farm.
Ferdinand Schenck Wilson,	Millstone,	Millstone.
Charles Sterling Wyckoff,	Woodhaven, L. I.,	59 French St.
Cornelius Einerick Wyckoff,	Hurley, N. Y.,	62 George St.

Scientific Section.

Names.	*Residences.*	*Rooms.*
Edwin Moore Alden,	Metuchen,	Metuchen.
Rufus Nutting Chamberlain,	Washington,	63 Bayard St.
Benjamin George Divine,	Elizabeth,	Elizabeth.

*Conditioned.

Names.	*Residences.*	*Rooms.*
Richard Donne Divine,	Elizabeth,	Elizabeth.
Samuel Dodds,	Anna, Ill.,	1 Union St.
Willard Avery Heacock,	Gloversville, N. Y.,	80 Paterson St.
Robert Hawthorn Ingersoll,	May's Landing,	Hamilton St.
William James Lansley,	Elizabeth,	Elizabeth.
George Morris,	New Monmouth,	9 Paterson St.
*George Perry Morris,	Montclair,	28 Paterson St.
George Albert Quakenbush,	Freehold,	Livingston Ave. and Seaman St.
Isaac Wright Reynolds,	Montrose, N. Y.,	49 Schurman St.
William Bishop Tomkins,	East Orange,	7 New St.
Edward Austin Waldron,	New Brunswick,	143 George St.

SPECIAL COURSE IN CHEMISTRY.

Second Year.

Names.	*Residences.*	*Rooms.*
Henry Rutgers Baldwin,	New Brunswick,	100 George St.
Walter Draper Gregory,	Fort Plain, N. Y.,	69 Albany St.
Frederick Allen Mandeville,	Newark,	Newark.

First Year.

Walter Almer Barrows,	Mount Holly,	56 Albany St.

SPECIAL COURSE IN AGRICULTURE.

Name.	*Residence.*	*Room.*
Richard Adams Learned,	New York City,	123 George St.

SUMMARY.

Graduates,	3	Sophomores,	23
Seniors,	17	Freshmen,	36
Juniors,	25	Special Coursemen,	5

*Special course.

Classical Department.

1. Requisites for Admission.

Examinations for admission to the College will be held on Monday and Tuesday of Commencement week, (see Calendar, page 2,) beginning at 10 o'clock Monday morning. Applicants for admission may also be examined on the Wednesday after the fifteenth of September, each year, at 9 A. M. Students who can do so are advised to be present for examination in June.

Examinations will be both written and oral.

Candidates for admission to advanced classes must sustain a satisfactory examination upon the subjects previously studied by the class which they propose to enter, as well as on those required for admission into the Freshman Class. Under this regulation, students are admitted at any time during the Collegiate year.

Students who desire to pursue selected branches of study may do so, if properly prepared to pursue them with the regular classes. Special provision is made for such students in the Scientific Department.

It is expected that students who present themselves will be prepared, by careful study and by *reviews* of their work, to pass successfully a thorough examination on the subjects which are required.

Hereafter *only such students will be admitted with conditions* as are, in the opinion of the examiners, so nearly prepared as to be able to make up all deficiencies during the first two months of the term, meanwhile maintaining a good standing in their class.

Conditioned students will have an opportunity given them to remove their entrance conditions as early as possible in the first term. It is expected that *all entrance conditions* will be made up before the Thanksgiving recess.

whatever profession or career is subsequently chosen. During the Junior and Senior years, certain subjects are required of all regular students, while other subjects are made elective, at least one of which must be pursued by each student, in the Junior year; and at least two in the Senior year.

MORAL PHILOSOPHY AND PRACTICAL ETHICS.

Moral Philosophy is taught during the Senior year by the study of text-books, by comments and criticisms, and by lectures. Full and intelligent discussion in the class-room is encouraged, in the belief that mere memorizing and reciting does not so teach such truth as to make it vitally the student's own.

The definite aim of the work in this department is not simply to set before the student what certain authors have written concerning theories of morality and virtue; but to make the study of the fixed and eternal distinction between right and wrong tend directly, so far as possible, to the voluntary and intelligent acceptance of the moral law, by every student, in the daily and hourly direction of his life.

A Course of Lectures on Practical Ethics is given; and lectures and discussions on the Duties of Citizenship are made an especial feature of this course of study.

A Sabbath morning Bible-Class, which all the students attend, is conducted by the President.

THE EVIDENCES OF CHRISTIANITY.

During the second and third terms, a course of lectures on the Evidences of Christianity is given to the Senior Class by the ex-President of the College.

LANGUAGES.

LATIN.—Prose authors of the Classical period are read first, and the thorough grammatical drill is given upon the language in its most correct form. Next, a prose author of the post-classical period is read. Then the poets, at least one in each literary period, are taken up in their chronological order. The

course is concluded with a rhetorical and a philosophical treatise. Exercises in Latin Composition are continually required of the student. History, archæology, and the social life of the Romans are taught by lectures and by an unusually full collection of charts, photographs, fac-similes, etc.

GREEK.—The Classical Greek authors are read by the whole class during the entire Freshman and Sophomore years, and one term of the Junior year; also, by students who elect Greek, during the whole of the Junior and Senior years. The course is intended to embrace at least one complete treatise from a leading author belonging to each period from Homer to Lucian. While the amount read is distinctly indicated by the Catalogue, it is the purpose to vary the authors, or the portions from the same author, from year to year.

Promising students are encouraged to take special courses of study, in addition to the regular class work; and private instruction, supplemented by an efficient library, is constantly given. The following books of reference are recommended: Smith's Classical Dictionaries, 6 vols.; Jelf's Greek Grammar; Krüger's Greek Grammar and Kühner's ausführliche griechische Grammatik; Liddell and Scott's Lexicon, 7th Oxford Edition; Grote's History of Greece, and Mahaffy's History of Greek Literature.

ENGLISH LANGUAGE AND LITERATURE.—The course in English embraces, with the elective study of Anglo-Saxon, the required study of the history of the English language and its literature, and the critical reading of English classics. A course of private reading is prescribed, upon which examinations are held. Essays in literary criticism are required during the Sophomore year. The elective study of the language and literature is pursued during the Junior year.

GERMAN is studied during the Junior and Senior years; and while the correct use and pronunciation of the spoken language is taught, special stress is laid upon the ability to read with fluency the standard authors. The Seniors have practice in German conversational exercises, and lectures on German litera-

ture. There are also classes for especial work in scientific German; and German text-books in Chemistry are in use to a limited extent.

FRENCH is taught throughout the Freshman year, in the Scientific Course, and is continued during the Sophomore year, preparing the students thoroughly for the use of French text-books in scientific subjects. Classes use *French text-books in Physics*, and in the *History of Civilization*. The aim of the course is to make the grammatical and linguistic training in the study of this language as valuable to the student as possible; and to accustom him to use French books and periodicals with perfect freedom in his professional studies and work.

In the Classical Course, instruction in French is offered to those who wish to take it as a study outside the course, and a course in French has been made an elective study for the Junior year.

HEBREW.—This language is taught as an extra study during the Senior year if any desire it.

MATHEMATICS AND ASTRONOMY.

The required studies in Mathematics include Geometry, with problems and exercises in Geometrical invention; Algebra and Plane and Spherical Trigonometry, with their application to problems in Surveying and Astronomy, and Analytic Geometry. These are the mathematical studies of the first two years.

Those who wish to do so elect in the Junior year the study of the Calculus and its applications.

Care is taken throughout that every principle receive a rigorous demonstration and that it be applied as far as is practicable. No principle is thoroughly learned by the student until he can apply it.

Elementary Astronomy is taught during the last term of the Junior year to students of the Classical and Engineering courses. The study of Theoretical and Practical Astronomy, with the use of the instruments of the Observatory, is elective in the Senior

year. It is desirable that those who intend to take elective Astronomy should take the elective Mathematics of the Junior year, that they may be prepared for lectures in the more advanced part of the course.

The DANIEL S. SCHANCK OBSERVATORY of Rutgers College is well equipped for the work of practical instruction, being supplied with a six and one-half inch refracting telescope, a meridian circle with four-inch object glass, a chronograph, a repeating circle, and other instruments. It is in telegraphic connection with other observatories.

The refined methods of measurement which the use of astronomical instruments requires, the discussion of results, and the determination of errors afford a means of mental training unsurpassed in value. Add to these the familiarity with spherical astronomy and with the constellations which this study imparts, and the advantage gained is a strong recommendation of its pursuit.

The Observatory was designed and is used not only for independent work, but for the *instruction of students in the theory and the use of astronomical instruments, and in practical observatory work.* It affords to students unusual facilities for learning how to use astronomical instruments.

PHYSICS.

This subject is taught by lectures, and copious additions are made to the matter of the text-book. Each point is demonstrated as far as possible; and the relations of the subject to ordinary natural phenomena, the processes of the industrial arts, etc., are pointed out. Students are encouraged to use the apparatus under the direction of the Professor in charge, and are trained to distinguish the essential from the casual conditions of experiments, as well as to infer from scientific data no more than is certain and warranted. The course begins with Mechanics and proceeds to Heat, Electricity, Sound and Light.

The apparatus is well fitted to illustrate all principles, and such additions are made to it as the industrial applications of science demand.

Students in the Scientific Course, in the study of Physics use the Paris Edition (French) of Deschanel's larger treatise.

NATURAL HISTORY.

The course in this department begins with the Freshman year, in which Physiology, Zoology, and Botany are taught. The several text-books are in all cases supplemented by illustrated lectures, and in the study of Botany by field excursions for practical work in the analyzing and classification of botanical specimens. Class-room microscopes, and the larger solar microscope are continually used by the students in all these branches of study. In the Junior and Senior years, these subjects are still further elaborated and studied in the sciences of Meteorology, Physical Geography, and Geology. The course of instruction is planned so as to bring these objects of every-day observation to the continued attention of the student, to teach him the principles of classification and systematic study, and to show their important relations to the successful conduct of the practical affairs of life. The extensive collections of minerals, fossils, geological and botanical specimens, shells, birds, etc., are arranged for study in the Museum of Geological Hall.

CHEMISTRY.

INORGANC CHEMISTRY is taught by Text-Book and Lectures. The subject is introduced by experimental lectures on the volume-composition of substances. Then follows a careful black-board drill on the writing of empirical and constitutional formulas of acids, bases and salts. The elements are next taken up in lectures, followed by recitations. In all cases the aim is to illustrate *every point* experimentally, thus giving the student ample experience in rigid experimental demonstration. The students are required to take full notes on the lectures, and sketches of the apparatus used in the experiments. These notes are afterward copied and handed to the Professor for examination, criticism, and correction, training the student in accurate observation, and in facility and brevity of expression. During the year, Stoichiometry, the Mathematics of Chemistry, is taught by black-board exercises.

ORGANIC CHEMISTRY is taught by lectures and recitations. Beginning with the determination of the molecular weight of organic compounds, the student is led to examine the principles of substitution, valence and structure of organic compounds. Starting out from Methane, the various members of the Methane (mono-carbon) series are derived. When this series has been completed, the Ethane series is taken up and gone through with in the same manner. Then follow the Butane and Propane series, etc. At the end of each series a recapitulation of the typical reactions, and relations of each group is given.

The manner of treating the subject is substantially the same as that introduced by Prof. Hofmann, of Berlin. As the various substances are considered, their relations to vegetable and animal life and to agriculture are pointed out. Attention is also given to their practical applications, as in food, medicines, dyeing, and in manufactures generally. The lectures are accompanied by full experimental illustrations.

APPLIED CHEMISTRY.—The applications of Chemistry to the arts and manufactures are taught by lectures and text-book. Whenever it is practicable, the actual products are exhibited to the students, and the manufacturing processes reproduced in miniature. Attention is drawn to the scientific relations and connections between the various manufactures. The great losses by imperfect methods of manufacture and by waste products are pointed out, and the student is taught to see the true economy of production. Illustrative of the lectures, visits are made to various manufacturing establishments, of which there are a number in and about New Brunswick, and an opportunity is given to see manufacturing operations in actual working.

ELECTIVE CHEMISTRY.—In the Junior and Senior years, students may elect a course in Analytical Chemistry with Laboratory Practice and Lectures. The experimental studies in this department have proved both attractive and profitable to those intending to devote themselves to Law or Medicine, or to business pursuits, as well as to men who intend to teach or to pursue lines of work immediately connected with chemistry and its applications.

The pupil begins by making the experiments in Eliot and Storer's Manual, thus acquiring by actual experience a familiarity with chemical substances and chemical phenomena.

The study of *Qualitative Analysis* is next taken up. The student makes the tests, studies the reactions, and proceeds rapidly from analysis of simple substances to the more complex. The method here followed of keeping notes of every step affords the student valuable practice in the three divisions of experimental science—Experiment, Observation, and Inference. The theory of analysis is explained in the lectures and recitations on the subject. In connection with this subject, *Blowpipe Analysis* is also taught. *Quantitative Analysis* now follows. The student having learned the means of detecting the constituents of a substance, proceeds to the determination of their amount. Pure salts of known composition are analyzed at first, so that the results may be compared with the theoretical percentages. A sufficient degree of accuracy having been obtained, substances of unknown composition, as minerals, metals, ores, waters, urines, poisons, fertilizers, coals, etc., are analyzed. Having thus become thoroughly acquainted with the theory and practice of analytical chemistry, the student undertakes original experimental investigations in the various branches of pure and applied chemistry. Results obtained in investigations have been from time to time published in the scientific journals. During their entire course students are required to prepare samples of pure chemicals, and by this means such practice is given in manipulation as cannot be acquired in any other way.

RHETORIC.

ELOCUTION.—During the Freshman year, lectures are delivered on the general principles of Elocution, and a practical application of these principles is made by appropriate exercises in Declamation, in which the members of the class are carefully drilled. In addition to this there are exercises in Oratory by all the students, both in the class-room and in the College Chapel. The Freshman and Sophomore classes speak selected pieces; the Juniors and Seniors are required to deliver original orations.

In the department of Rhetoric, begun during the Freshman

year, an effort is made to teach the principles of Composition, not as laid down in mechanical rules, but as springing from psychological laws and relations. Ideas presented in accordance with various mental requirements and influences are shown to contain the true philosophy of rational and effective discourse. Illustrative references to the Masterpieces of Oratory, and to other forms of the best English Classical Literature are freely given. Essays are required throughout the entire course.

The *Bussing Prizes* for excellence in *ex tempore* speaking, recently founded, are designed to cultivate the habit of presenting clearly, forcibly and accurately, and in a manner to convince an audience, the facts and ideas a student has upon themes with which he may fairly be supposed to be somewhat conversant. It is confidently expected that the repeated competitions for these prizes during the four years of the College course, will be productive of excellent effects.

METAPHYSICS AND LOGIC..

MENTAL PHILOSOPHY.—Porter's Elements of Intellectual Philosophy is used as a text-book during the first term and a part of the second term of the Junior year. The characteristic doctrines of the distinctive schools in Ancient and Modern Philosophy are presented in a course of Lectures upon the representative thinkers in these schools. Much attention is paid to the most important philosophical and metaphysical questions now at issue among speculators. The results of recent critical discussions together with comments are interspersed with the daily recitations.

LOGIC.—Jevons-Hill's text-book is used. Special care is taken to enforce a practical application of logical formulas in the resolution of arguments, and the detection of sophistries. To this end illustrative examples are drawn from different authors and much oral instruction is given.

HISTORY, POLITICAL ECONOMY AND CONSTITUTIONAL LAW.

HISTORY.—The study of History is begun in the Sophomore year with the use of a text-book giving the outlines of modern

history, beginning with the fall of the Roman Empire and tracing the formation and growth of modern States. In this part of the course, a knowledge of historical geography is essential, and to this end, a constant use of the historical atlas is required of the student. From time to time and increasingly, as the class becomes familiar with the facts of history, and especially with the general relations of events, topics are assigned for special study, the results of such study by different members of the class and the various historical narratives which have been consulted are compared, the purposes and characteristics of historians pointed out, and instruction is given on the sources of history. The third term of the Sophomore year is spent in the study of the history of the English Constitution. Instruction in Ancient History is given to the students of the Classical Department by the Professors of Latin and Greek; to the students of the Scientific Department in the Sophomore year by the Professor of History.

In the Junior year the purpose is to give a view of the Philosophy of History. Guizot's History of Civilization in Europe is used as a text-book. In lectures before the class, attention is directed to the action and reciprocal influences of political forces. The subjects assigned for essays are intended to stimulate a desire to understand the abstract and universal ideas which underlie the causes of events and which give to history its continuity and unity.

For students of the Senior year and for graduates, the Professor of History has formed a class in which the methods of study will be those of the so-called historical "Seminary." The following may serve as examples of the nature of the subjects proposed for investigation in this class:

Methods of historical inquiry; fields open to the American student for original historical research; the nature of local government in England and in America; comparative study of local institutions in the United States; the English Government in its theory and methods.

POLITICAL ECONOMY.—Instruction is given in Political Economy to the Junior Class of the Scientific Department and

to the Senior Class of the Classical Department by means of text-books, lectures and conversational discussions. The student is required to become familiar with the leading principles of this subject as presented by the author whose work is used as a text-book, and is then encouraged to study economical problems of the present time from the historical and, so far as may be, absolutely impartial standpoint.

CONSTITUTIONAL LAW.—The Senior Class will pursue the study of Constitutional Law in the second term. With the study of the present status of Constitutional Law, a constant reference to the reports of decisions in the more important cases will serve to develop a familiarity with the processes of constitutional growth. Subjects involving constitutional questions will be assigned for the writing of essays.

During the same term the study of the History of the Constitution of the United States is pursued by the Junior Class of the Scientific Department.

INTERNATIONAL LAW.—The work of a French or German author will be made the basis of an exposition of the principles of International Law, while at the same time the acknowledged superiority of American and English authorities will be kept in view. The subject is taken up in the second term of the Senior year.

ARCHITECTURE.

ARCHITECTURE is taught during the third term of the Senior year, and is brilliantly illustrated by stereopticon pictures, showing the successive orders and styles which have prevailed among different peoples and at different times.

PHYSICAL DEVELOPMENT—GYMNASIUM.

The Athletic Association, composed of students of Rutgers College, possesses large and commodious grounds.

The excellent *Gymnasium* in Suydam Hall, three minutes' walk from the college buildings, by the courtesy of the Theological Seminary of the Reformed Church is open to the daily use of the students of Rutgers.

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BOARD OF VISITORS.

(APPOINTED BY THE GOVERNOR.)

	Residences.	*Terms Expire.*
FIRST CONGRESSIONAL DISTRICT.		
DAVID A. SHREVE, ESQ.,	Haddonfield,	April 18, 1886.
I. M. SMALLEY, ESQ.,	Roadstown,	April 18, 1886.
SECOND CONGRESSIONAL DISTRICT.		
HON. WILLIAM PARRY,	Cinnaminson,	March 8, 1885.
WILLIAM S. TAYLOR, ESQ.,	Burlington,	April 18, 1886.
THIRD CONGRESSIONAL DISTRICT.		
JOHN V. N. WILLIS, ESQ.,	Marlboro,	April 18, 1886.
JAMES NEILSON, ESQ.,	New Brunswick,	April 18, 1886.
FOURTH CONGRESSIONAL DISTRICT.		
JOHN DE MOTT, ESQ.,	Middlebush,	April 12, 1885.
CALEB WYCKOFF, ESQ.,	Belvidere,	April 22, 1886.
FIFTH CONGRESSIONAL DISTRICT.		
HENRY P. SIMMONS, ESQ.,	Passaic,	April 18, 1886.
* CORNELIUS A. WORTENDYKE, ESQ.,	Wortendyke,	April 12, 1885.
SIXTH CONGRESSIONAL DISTRICT.		
HON. GEORGE H. HARTFORD,	Orange,	April 18, 1886.
WILLIAM M. FORCE, ESQ.,	Newark,	March 8, 1885.
SEVENTH CONGRESSIONAL DISTRICT.		
ABRAHAM W. DURYEE, ESQ.,	New Durham,	April 18, 1886.
JAMES STEVENS, ESQ.,	Jersey City,	April 18, 1886.

OFFICERS:

HON. WILLIAM PARRY, *Chairman.*

GEORGE H. COOK, *Secretary.*

* Deceased.

1. Conditions of Admission.

Every applicant for admission must be at least sixteen years of age, and must submit to the President proper testimonials of a good moral character. If an applicant for a State Scholarship, he must also present to the President a certificate of appointment from the County Superintendent.

Examinations for admission will be held on the same days as for the Classical Department, viz.: on the Monday and Tuesday preceding Commencement, beginning at 10 o'clock A. M. on Monday, in the President's office. Applicants for admission may also be examined on the Wednesday next after the 15th of September, at the same hour and place; but all students who can conveniently do so, are advised to be present in June.

Students may enter an advanced class either at the beginning of the College year or at other times, on condition that they sustain a satisfactory examination both on the preliminary studies and on those already passed over by the class which they propose to enter.

Provision is made for such students as wish to devote themselves to special subjects, if they are prepared to study profitably with the regular classes in those subjects.

The following are the subjects in which those desiring to enter the Freshman Class of the Scientific Department are examined. As they are all such as can be acquired in our best common schools, *it is insisted that the preparation in them shall be thorough and complete.* The general regulations as to conditions and their removal will be the same as those which apply to the classical course; and may be found on pages 13 and 48.

1. Arithmetic.—Fundamental Operations; Common and Decimal Fractions; Denominate Numbers, including the Metric System; Percentage, including Interest and Discount; Proportion; Extraction of the Square and the Cube Roots.

2. Algebra to Series; as much as is contained in Loomis' Treatise on Algebra, Wentworth's Complete Algebra, or Wells' University Algebra.

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WILLIAM S. TAYLOR, ESQ.,	Burlington,	April 18, 1886.
THIRD CONGRESSIONAL DISTRICT.		
JOHN V. N. WILLIS, ESQ.,	Marlboro,	April 18, 1886.
JAMES NEILSON, ESQ.,	New Brunswick,	April 18, 1886.
FOURTH CONGRESSIONAL DISTRICT.		
JOHN DE MOTT, ESQ.,	Middlebush,	April 12, 1885.
CALEB WYCKOFF, ESQ.,	Belvidere,	April 22, 1886.
FIFTH CONGRESSIONAL DISTRICT.		
HENRY P. SIMMONS, ESQ.,	Passaic,	April 18, 1886.
* CORNELIUS A. WORTENDYKE, ESQ.,	Wortendyke,	April 12, 1885.
SIXTH CONGRESSIONAL DISTRICT.		
HON. GEORGE H. HARTFORD,	Orange,	April 18, 1886.
WILLIAM M. FORCE, ESQ.,	Newark,	March 8, 1885.
SEVENTH CONGRESSIONAL DISTRICT.		
ABRAHAM W. DURYEE, ESQ.,	New Durham,	April 18, 1886.
JAMES STEVENS, ESQ.,	Jersey City,	April 18, 1886.

OFFICERS:

HON. WILLIAM PARRY, *Chairman.*

GEORGE H. COOK, *Secretary.*

* Deceased.

1. Conditions of Admission.

Every applicant for admission must be at least sixteen years of age, and must submit to the President proper testimonials of a good moral character. If an applicant for a State Scholarship, he must also present to the President a certificate of appointment from the County Superintendent.

Examinations for admission will be held on the same days as for the Classical Department, viz.: on the Monday and Tuesday preceding Commencement, beginning at 10 o'clock A. M. on Monday, in the President's office. Applicants for admission may also be examined on the Wednesday next after the 15th of September, at the same hour and place; but all students who can conveniently do so, are advised to be present in June.

Students may enter an advanced class either at the beginning of the College year or at other times, on condition that they sustain a satisfactory examination both on the preliminary studies and on those already passed over by the class which they propose to enter.

Provision is made for such students as wish to devote themselves to special subjects, if they are prepared to study profitably with the regular classes in those subjects.

The following are the subjects in which those desiring to enter the Freshman Class of the Scientific Department are examined. As they are all such as can be acquired in our best common schools, *it is insisted that the preparation in them shall be thorough and complete.* The general regulations as to conditions and their removal will be the same as those which apply to the classical course; and may be found on pages 13 and 48.

1. Arithmetic.—Fundamental Operations; Common and Decimal Fractions; Denominate Numbers, including the Metric System; Percentage, including Interest and Discount; Proportion; Extraction of the Square and the Cube Roots.

2. Algebra to Series; as much as is contained in Loomis' Treatise on Algebra, Wentworth's Complete Algebra, or Wells' University Algebra.

3. PLANE GEOMETRY.—The *whole* of Plane Geometry will be required.

4. ENGLISH GRAMMAR—including Spelling.

5. DESCRIPTIVE GEOGRAPHY.

6. PHYSICAL GEOGRAPHY.

7. HISTORY OF THE UNITED STATES.*

8. Such a knowledge of Elementary PHYSICS and CHEMISTRY as may be obtained from Peck's Ganot's Physics, or Wells' Natural Philosophy, and Valentine's Twenty Lessons in Chemistry, or Cooley's or Steele's Chemistry, is required for admission.

9. AN ESSAY will also be required, to be written at the examination, on some subject drawn from books announced in advance. The books to be read with this in view will be those named for the English essay in the Classical Department, on page 16.

In preparing the student for this course, it is recommended that he be drilled thoroughly in Arithmetic, as a clear understanding of its simple elementary and practical principles is essential to a good Mathematician. His preparation in Algebra to Series should be *very thorough.* In addition to understanding the PRINCIPLES of the science, he must fix them in his memory, and learn their bearing and utility, and for this reason he must pay great attention to the solution of practical examples. What is needed is ability to solve ordinary examples with facility and explain them thoroughly.

Attention is specially called to the Metric System of Weights and Measures, a practical knowledge of which is indispensable, since it is *used* in the class-room.

2. COURSE OF STUDY.

Three distinct courses of study are included in the schedule which follows:

I. A COURSE IN CIVIL ENGINEERING AND MECHANICS.

II. A COURSE IN CHEMISTRY AND AGRICULTURE.

III. A SPECIAL COURSE IN AGRICULTURE.

* For particulars see page 17.

During the first year the studies of the two full courses are the same, and are designed to furnish a suitable introduction to the pursuit of the higher branches in either.

ENGINEERING COURSE.—During the last three years, the students in this course are instructed in Railroad Curves, Descriptive Geometry, Analytic Geometry, Differential and Integral Calculus, Analytic Mechanics, Civil Engineering, Bridge-Building and Geodesy; and have daily practice in Draughting, with Exercises and Problems in Geometrical Constructions, in Descriptive Geometry, Topographical, Mechanical and Architectural Drawing, and in Graphical Statics.

Students in this course, and in the Chemical and Agricultural Course, in addition to the special and technical studies of their course, pursue such studies in English, Rhetoric, Elocution, French or German, Metaphysics and Moral Philosophy and the Natural Sciences as are calculated to make them broadly educated and intelligent citizens, and not mere narrow specialists.

The course of study for the first year in this Department is arranged so as to be complete in itself. It is especially designed to meet the wants of those who cannot take the entire four years' course, but who desire to fit themselves as Land Surveyors. Students leaving at this period of the course, receive from the Faculty a certificate of their attainments.

CHEMICAL AND AGRICULTURAL COURSE.—During the last three years, the students in this course are instructed in General, Experimental, Theoretical, Organic and Applied Chemistry, Stoichiometry, Theory and Practice of Agriculture, Determinative Mineralogy, Blowpipe Analysis, and Analytical Chemistry, including the Analysis of Ores, Minerals, Coals, Waters, Technological Products, Soils, Fertilizers, Agricultural Products and Foods, Poisons, Urine and Animal Products. Instruction is also given in Spectrum Analysis, and Microscopical Examination. The course of study depends, to some extent, upon the student's future pursuit in life.

The special course in Agriculture occupies two years. In the remaining studies, the courses in Engineering, Chemistry and Agriculture are the same.

Partial Students are received, and allowed to take part in the above courses, provided their previous education is sufficient; and particular provision is made for them, especially in the Laboratory, in the application of science to Agriculture, and in Mathematics, Surveying and Draughting.

SPECIAL PROVISION IS ALSO MADE FOR STUDENTS WHO DESIRE, AFTER COMPLETING THE REGULAR COURSE OF STUDY, TO TAKE POST-GRADUATE STUDIES.

In connection with the instruction in Agriculture in this department, the Trustees maintain an extensive model farm, designed to illustrate the principles of agriculture.

MILITARY TACTICS.—In accordance with the requirements of the law, provision is made in this department for the study of Military Tactics.

ANNUAL REPORT OF THE SCIENTIFIC DEPARTMENT.

More extended information about the studies and courses in the Scientific School will be found in the Annual Report of the New Jersey State Scientific School to the Legislature of New Jersey, which will be sent to any address, on application.

3. ORGANIZATION.

This department of the College has been designated by the Legislature of New Jersey, in accordance with the law of Congress,

THE STATE COLLEGE FOR THE PROMOTION OF AGRICULTURE AND THE MECHANIC ARTS.

Under the law, a certain number of students from the State of New Jersey are received into this department of the College, and educated free of expense for tuition. This law also provides for the appointment by the Governor of a Board of Visitors, two from each Congressional District, who possess general powers of supervision and control. The State pupils are admitted to free scholarships on the recommendation of the Superintendent of Schools in each county and on passing the required examina-

tions. These free scholarships are distributed among the counties in proportion to their population as follows:

STATE SCHOLARSHIPS.

Atlantic,	1	Middlesex,	2
Bergen,	1	Monmouth,	2
Burlington,	3	Morris,	2
Camden,	2	Ocean,	1
Cape May,	1	Passaic,	2
Cumberland,	1	Salem,	1
Essex,	6	Somerset,	1
Gloucester,	1	Sussex,	1
Hudson,	6	Union,	2
Hunterdon,	1	Warren,	1
Mercer,	2		40

Notice of examinations to be held in the several districts to fill vacancies which may exist in these Scholarships will be from time to time given by the State Superintendent of Education to the several County Superintendents.

Letters to the President or the Secretary of the Faculty, inquiring about vacancies, will receive careful attention.

COURSES OF STUDY.

Freshman Year.

Exercises during the year in Composition and Declamation.
Bible-Class, Sabbath morning.

FIRST TERM.

1. French.
2. Mathematics.—Loomis' Algebra completed; Geometry.
3. Physiology.—Dalton's; Lectures.
4. Rhetoric.—Kellogg; Lectures.
5. Draughting.—Practical Plane Geometry.
6. English Literature.—Alden's Studies in Bryant.

SECOND TERM.

1. French.
2. Mathematics.—Geometry completed; Trigonometry, Plane and Spherical, Loomis.
3. Comparative Zoölogy.—Orton.

4. Elocution.—Lectures.

5. English Literature.—History of the English Language; Study of Words, Trench; Hales' Longer English Poems.

6. Draughting.—Coloring, Topographical Signs, etc.

THIRD TERM.

1. French.

2. Mathematics.—Surveying, Murray.

3. Botany.—Gray's; Lectures.

4. English Literature.—English Authors.

5. Draughting.—Mapping, with sections, etc.; Field work.

Sophomore Year.

Course in Civil Engineering and Mechanics.

Exercises during the year in Composition and Declamation.
Bible-Class, Sabbath morning.

FIRST TERM.

1. Railroad Curves.—Henck's Field Book.

2. Descriptive Geometry.—Church.

3. Chemistry.—Barker; Lectures, with Experiments; Stoichiometry.

4. French.—Deschanel's Larger Treatise on Physics, latest Paris edition.

5. History.—Freeman's Outlines.

6. Draughting.—Practical Geometry, Solid; Free-hand Drawing, Shades and Shadows.

7. English Literature.—Essays in Literary Criticism.

SECOND TERM.

1. Descriptive Geometry.—Church; Construction of Problems.

2. Analytic Geometry.—Bowser.

3. Chemistry.—Barker; Lectures, with Experiments.

4. French; German.—Studied with a view to use in Natural Science.

5. History.—Freeman's Outlines.

6. Draughting.—Intersection of Surfaces, etc.

7. English Literature.—Essays in Literary Criticism.

THIRD TERM.

1. Analytic Geometry.—Bowser, completed.

2. Shades, Shadows and Perspective.—Church; Construction of Problems.

3. Chemistry.—Barker; Lectures, with Experiments.

4. French or German.

5. History.—Creasy's Constitutional History of England.

6. Draughting.—Linear Perspective, etc.

7. English Literature.—Essays in Literary Criticism.

Sophomore Year.

Course in Chemistry and Agriculture.

Exercises during the year in Composition and Declamation.
Bible-Class, Sabbath morning.

FIRST TERM.

1. Experimental Chemistry.—Eliot and Storer.
2. Qualitative Analysis.—Fresenius; Lectures; Laboratory Practice.
3. Chemistry.—Barker; Lectures, with Experiments; Stoichiometry.
4. French.—Deschanel's Larger Treatise on Physics, latest Paris edition.
5. History.—Freeman's Outlines.
6. Draughting.—Practical Geometry, Solid; Free-hand Drawing, Shades and Shadows.
7. English Literature.—Essays in Literary Criticism.

SECOND TERM.

1. Qualitative Analysis.—Fresenius; Lectures; Laboratory Practice.
2. Chemistry.—Barker; Lectures, with Experiments.
3. French; German.—Studied with a view to use in Natural Science.
4. History.—Freeman's Outlines.
5. Draughting.—Intersection of Surfaces, etc.
6. English Literature.—Essays in Literary Criticism.

THIRD TERM.

1. Qualitative Analysis.—Fresenius; Lectures; Laboratory Practice.
2. Chemistry.—Barker; Lectures, with Experiments.
3. French or German.
4. History.—Creasy's Constitutional History of England.
5. Draughting.—Linear Perspective, etc.
6. English Literature.—Essays in Literary Criticism.
7. Scientific German.—Pinner's anorganische Chemie.

Junior Year.

Course in Civil Engineering and Mechanics.

Exercises during the year in Composition and Original Declamation.
Bible-Class, Sabbath morning.

FIRST TERM.

1. Mental Philosophy.—Porter's Elements of Intellectual Philosophy; Lectures; Essays.
2. Differential Calculus.—Bowser.
3. Physics.—Deschanel; French Text-book.

4. Political Economy.—Walker and Perry.
5. Draughting.—Lettering, etc.
6. German.

SECOND TERM.

1. German.
2. Differential Calculus.—Completed; Integral Calculus.—Bowser.
3. Physics.—Deschanel; French Text-book.
4. Logic.—Jevon's Hill's Text-book, and Lectures.
5. Constitutional History of the United States.—Text-book, Andrews; Lectures.
6. Draughting.—Shading, etc.

THIRD TERM.

1. English Literature.—English Authors.
2. Integral Calculus.—Completed.
3. Astronomy.—Newcomb and Holden.
4. History of Civilization.—Guizot, French Text.
5. Draughting.—Construction.
6. German.
7. Mineralogy.

Junior Year.

Course in Chemistry and Agriculture.

Exercises during the year in Original Composition and Declamation. Bible-Class, Sabbath morning.

FIRST TERM.

1. Mental Philosophy.—Porter's Elements of Intellectual Philosophy; Lectures.
2. Quantitative Analysis.—Fresenius, Cairns; Lectures; Laboratory Practice; Organic Chemistry, Pinner-Austen; Lectures, with Experiments.
3. Chemistry.—Roscoe and Schorlemmer.
4. Agriculture.—Lectures at the Farm.
5. Physics.—Deschanel; Lectures, with Experiments.
6. Political Economy.—Walker and Perry.
7. German.
8. Draughting.—Lettering, etc.

SECOND TERM.

1. Mental Philosophy.—Continued, and Logic.
2. Quantitative Analysis.—Fresenius, Cairns; Lectures; Laboratory Practice.
3. Organic Chemistry.—Pinner-Austen and Lectures, first four weeks.
4. Chemistry.—Roscoe and Schorlemmer.

5. AGRICULTURE.—Lectures.
6. PHYSICS.—Deschanel; Lectures, with Experiments.
7. CONSTITUTIONAL HISTORY OF THE UNITED STATES.—Andrews; Lectures.
8. GERMAN.
9. DRAUGHTING.—Shading, etc.

THIRD TERM.

1. ENGLISH LITERATURE.—English Authors.
2. QUANTITATIVE ANALYSIS.—Fresenius, Cairns; Lectures; Laboratory Practice.
3. CHEMISTRY.—Roscoe and Schorlemmer.
4. AGRICULTURE.—Vegetable Physiology.
5. HISTORY OF CIVILIZATION.—Guizot, French Text.
6. GERMAN.
7. DRAUGHTING.—Construction.
8. MINERALOGY.

SENIOR YEAR.

COURSE IN CIVIL ENGINEERING AND MECHANICS.

Exercises during the year in Composition and Original Declamation.
Bible-Class, Sabbath morning.

FIRST TERM.

1. MORAL PHILOSOPHY.—Calderwood; Lectures.
2. MECHANICS.—Bowser.
3. ENGINEERING.—Mahan.
4. PHYSICS.—Deschanel; French Text-book.
5. DRAUGHTING.—Machinery and Architecture.

SECOND TERM.

1. MORAL PHILOSOPHY.—Calderwood; Lieber's Political Ethics; Lectures.
2. ENGINEERING.—Mahan.
3. MECHANICS.—Bowser; Bridge-Building, Wood.
4. PHYSICS.—Deschanel; French Text-book.
5. GEOLOGY.—Dana; Lectures.
6. DRAUGHTING.—Engineering.

THIRD TERM.

1. BRIDGE-BUILDING.—Wood; Geodesy; Lectures.
2. GEOLOGY.—Dana; Lectures.
3. MORAL PHILOSOPHY.—Butler's Analogy; Lectures on Practical Ethics and Duties of Citizenship.
4. DRAUGHTING.—Thesis.

Senior Year.

Course in Chemistry and Agriculture.

Exercises during the year in Composition and Original Declamation.
Bible-Class, Sabbath morning.

FIRST TERM.

1. Moral Philosophy.—Calderwood's Hand-book; Lectures.
2. Chemistry.—Roscoe and Schorlemmer.
3. Principles of Agriculture.—Lectures; Care and Feeding of Domestic Animals; Armsby's Cattle Feeding.
4. Quantitative Analysis.—Fresenius, Cairns; Lectures; Laboratory Practice.
5. Physics.—Deschanel; French Text-book.
6. Draughting.
7. Scientific German.—Hodges' Course, Sheldon's Grammar.

SECOND TERM.

1. Moral Philosophy.—Calderwood; Lieber's Political Ethics; Lectures.
2. Chemistry.—Roscoe and Schorlemmer.
3. Agriculture.—Its Methods and Products; Johnson's "How Crops Grow."
4. Quantitative Analysis.—Fresenius, Cairns; Lectures; Laboratory Practice.
5. Physics.—Deschanel; French Text-book.
6. Draughting.
7. Geology.—Dana; Lectures.
8. Scientific German.—Pinner's anorganische Chemie.

THIRD TERM.

1. Chemistry.—Roscoe and Schorlemmer.
2. Agriculture.—Lectures; Johnson's "How Crops Feed."
3. Geology.—Dana; Lectures.
4. Moral Philosophy.—Butler's Analogy; Lectures on Practical Ethics and Duties of Citizenship.
5. Quantitative Analysis.—Fresenius, Cairns; Lectures; Laboratory Practice.
6. Draughting.
7. Thesis.
8. Scientific German.—Pinner's anorganische Chemie.

SPECIAL COURSE IN AGRICULTURE.

FIRST YEAR.

First Term.—1. Algebra. 2. Geometrical Problems. 3. Inorganic Chemistry. 4. Physiology and Zoölogy. 5. Analytical Chemistry.

Second Term.—1. Geometry. 2. Coloring and Topographical Drawing. 3. Analytical Chemistry. 4. Book-Keeping.

Third Term.—1. Trigonometry. 2. Mapping. 3. Analytical Chemistry. 4. Botany. 5. Farm Accounts.

SECOND YEAR.

First Term.—1. Surveying. 2. Projections. 3. Physics. 4. Care and Feeding of Domestic Animals. 5. Systematic Agriculture. 6. Analytical Chemistry.

Second Term.—1. Navigation and Nautical Astronomy. 2. Architectural Drawing. 3. Physics. 4. Geology. 5. How Crops Grow.

Third Term.—1. Leveling and Road Making. 2. Machine Drawing. 3. Meteorology. 4. Botany. 5. How Crops Feed.

Composition and Declamation throughout the whole course.

The hours of lectures or recitations are four each day, besides work in the Chemical Laboratory, and in the Draughting Room.

Students who pass their regular examinations in the above subjects, will, at the close of their course, receive certificates of their attainments. And at the end of two or more years further, if they shall have pursued practical agriculture on a farm, and shall then pass satisfactory examinations in prescribed subjects on Agricultural principles and practice before a Board of Examiners of the Scientific School, they shall receive Diplomas in Agriculture.

EXAMINATIONS.

The classes in both departments are examined at the close of each term. These examinations are partly oral and partly written, and have an important bearing upon the standing of the student in his class.

Unexpected examinations at irregular intervals are held at the discretion of each instructor. The object of these examinations is to cultivate the habit of considering the relations of each day's work to what has been done before, and to stimulate effort on the part of each student to gain a comprehensive knowledge of the subjects studied.

At the end of the first and third terms, the examinations of the classes of the Scientific section are held in the presence of the Board of Visitors, who then make their semi-annual visits to the Institution.

At the end of the third term, each member of the Graduating Class of the Scientific Section is required to present a thesis on some scientific subject, a copy of which is to be written out upon paper suitable for binding, and deposited in the College Library.

The final examination of the Graduating Classes is held four weeks before Commencement, from which time they are subject to such duties as are required for their preparation for Commencement.

GRADUATION.

To all members of the Graduating Class of the Classical Department, in full standing, the Trustees grant diplomas conferring the Academic degree of Bachelor of Arts.

To all members of the Graduating Class of the Scientific Department, in full standing, the Trustees grant diplomas conferring the Academic degree of Bachelor of Science.

To all members of the Graduating Class, in either Department, who have satisfactorily pursued special courses of study, a certificate is granted stating the studies pursued and the attainments made.

To those students who have pursued satisfactorily the studies of the first two years of the Scientific Course, and who desire to leave at that time, a special certificate is granted by the Faculty.

The following regulations have been adopted by the Board of Trustees in regard to the graduating exercises at Commencement:

1. The privilege of speaking at Commencement shall be open without distinction to the Classical and Scientific Sections of the Graduating Class.

2. The graduating honors shall be as follows:

FIRST HONOR—Latin Salutatory.
SECOND HONOR—English Salutatory.
THIRD HONOR—Philosophical Oration.
FOURTH HONOR—Scientific Oration.

If the first honor be awarded to a member of the Scientific Section of the Graduating Class, he shall deliver a German Salutatory.

3. The *Valedictory* shall be regarded as a *rhetorical honor only*, and shall be awarded to the best writer and speaker in his class (to be determined by his grade in composition and elocution during the Junior and Senior years), provided that he

has been a member of his class for two years, and has a general grade in scholarship among the best two-thirds.

4. Eleven other speakers shall be chosen, of whom six shall be chosen by grade in scholarship, provided, that in their grade in composition and elocution during their Junior and Senior years they are among the best two-thirds; and five shall be chosen by grade in composition and elocution during their Junior and Senior years, provided, that in their general grade in scholarship they are among the best two-thirds.

DEGREES AND POST-GRADUATE STUDIES.

The degrees of A. M. and M. S. are no longer given "in course," but only for work done.

The Faculty will recommend for the degree of Master of Arts or Master of Science candidates otherwise properly qualified, who, after taking the appropriate Bachelor's degree,

1. Shall pursue for at least one year at Rutgers College a course of liberal and non-professional study, approved by the Faculty, and shall, besides the term examinations, pass a thorough examination on that course and present a thesis on some topic connected with it; or,

2. Who, not less than three years after taking the Bachelor's degree at Rutgers College, shall make application for the Master's degree, presenting at the same time a certificate of graduation from a Theological Seminary, a Law School, or a Medical School, or of admission to the practice of Law or Medicine; or,

3. Satisfactory evidence of successful labor in that field of education or literature which may have been chosen; or,

4. In case of Bachelors of Science, satisfactory evidence of successful professional work actually done and advanced professional studies prosecuted.

The degrees of Ph.D. and D.Sc., may be conferred upon resident graduates of the College who shall pursue for two years prescribed courses of study under the direction of the Faculty.

The conditions will be made known on application.

REGULATIONS.

Morning prayers are attended in the College Chapel each morning, except Saturday and Sunday, at 8:40 o'clock.

The recitation hours extend from 9 o'clock A. M. to 1 o'clock P. M., during five days of the week.

A Bible-Class is held Sabbath morning in the College Chapel at 9:30 o'clock. All students are required to attend it.

A sermon is preached every Sabbath morning in the College Chapel at 10:30 o'clock. Students are required to be present. They are expected, also, to attend public worship in the afternoon or evening, at such place as their parents or guardians may direct.

No student is allowed to leave the city during term time without permission from his Division Officer.

Recitations are marked on a scale of 100, and the average standing of each student is made up at the end of each term, and sent to his parent or guardian. A mark at examination counts as much as one-third of the term's work up to the time of examination.

If the grade of a student in any term falls below 60 per centum of the maximum in one of his studies, he is conditioned in that study, and must be re-examined therein.

If the average of any student in any study at any time falls below 60 per centum of the maximum grade, his case must be acted on as the Faculty shall deem necessary.

If any student's average grade in any term falls below 60 per centum of the maximum, he loses his standing in his class, and is required to fall back a year in the course. If his work is not satisfactory after a month's trial here, he is dismissed from College.

If any student is found to be notably deficient in his daily recitations, or at the examination in any of his studies, his case

is reported to the Faculty, and such action by way of discipline is taken as may be deemed necessary.

No student can be promoted to an advanced class until all his deficiencies are made up; and if he fails to make up all his deficiencies before the opening of the College year, he is required to go back a year in his course. Examinations for making up such deficiencies are held *on the first day of the Autumn Session in September, at 9 A. M.*

It is especially requested that no young man come or be sent to Rutgers College who does not have the definite wish and the manly purpose to make the most of his time and his opportunities for improvement.

College Expenses.

FEES.

Tuition, per annum,	$75 00
Incidentals—Janitor, Fuel, &c., per annum,	8 00
Reading Room, per annum,	2 00
Admission Fee,	5 00
Graduation Fee,	7 50
Analytical Chemistry, extra, per term,	15 00

Of the above expenses, the admission fees are payable, on entrance, to the College Treasurer; the incidental expenses are payable at the beginning of the first term, in September; of the tuition fees, one-third, viz., $25, is payable within ten days after the beginning of each term. All checks should be made payable to the Treasurer of Rutgers College.

Students in Analytical Chemistry are charged $15 additional per term, for chemicals and use of the Laboratory, which amount must be paid within ten days after the beginning of the term. They are also expected to provide themselves, at their own expense, with the necessary sets of apparatus, which may be

obtained from the regular apparatus dealers, or from the Laboratory Supplies department. These sets are retained through the year, but at the end of it, if the owners do not wish to keep them, they will be purchased at a fair price. If proper care has been exercised, a small discount only (about 10 per cent.) from the original cost will be made. All breakage will be charged in full.

BOARD.

Board, with furnished rooms, can be obtained in New Brunswick at the present time for $4 to $7 per week; board without rooms for $3 to $5 per week. Students having the ministry in view may obtain rooms in Hertzog Hall, in the Theological Seminary, free of charge. These rooms are heated and lighted.

The Faculty are empowered to pass such regulations relative to the number of boarders in each house as they think proper; and students shall board only at such places as are approved by them.

By combining in clubs, students are able to reduce somewhat their expense for board.

Free scholarships and pecuniary assistance may be given to young men of approved character and ability, whose family circumstances are such as to make this assistance necessary. No deserving student who has shown perseverance and capacity is allowed to give up his course for lack of assistance.

BENEFICIARY AID.

1. VAN BENSCHOTEN FUND.

This fund, the gift of the Rev. Elias Van Benschoten, in 1814, amounting to $20,813, was given in trust jointly to the General Synod of the Reformed Church and the Trustees of Rutgers College, to aid in the education of indigent students for the ministry. The students who enjoy the benefits of this fund

are appointed by the Trustees of the College on the nomination of the General Synod of the Reformed Church, and receive $150 annually.

2. Knox Fund.

This fund, consisting of $2,000, was given by Mrs. Rebecca Knox, of Philadelphia, in 1815, to the Trustees of Rutgers College, the income from it to be expended for the support of one student in the Theological Seminary.

3. W. P. Smock Fund.

William P. Smock, of Marlboro, N. J., left by his will, to the Trustees of Rutgers College, the sum of $500, to be invested as a fund, the interest of which should be used to aid in the education of young men for the ministry. This legacy was received in 1859, and has been since that time duly employed for the purpose indicated.

4. Mandeville Fund.

In 1865 the Trustees of Rutgers College received from the executor of the will of William Mandeville, of New York City, the sum of $2,000; said sum to be invested, and the income thereof to be applied to the support of a theological student in the College.

5. Voorhees Fund.

Abraham Voorhees, of Franklin Park, N. J., bequeathed by his will, $26,000 to the Trustees of Rutgers College, the income of which is to be expended in aiding worthy young men who are candidates for the ministry, while pursuing their studies in Rutgers College. A grant of $200 per annum is made to the students thus receiving aid.

6. Free State Scholarships.

The law of the State of New Jersey granting to the Scientific Department of Rutgers College the Agricultural College Endowment, provides for the education of forty State students free of expense for tuition. These scholarships are distributed among

the counties in proportion to their population, and the appointments to fill vacancies are made by the County Superintendent. The appointment gives the right to a course of instruction of four years in Rutgers Scientific School, on successfully passing the entrance examinations.

7. Board of Education.

The Board of Education of the Reformed Church grants aid to young men preparing for the ministry in the denomination. The conditions are that the persons receiving aid shall have been members of some Evangelical Church one year, and at the time members of some Reformed Church. The aid may be obtained either while in College, or in the Theological Seminary.

At present the amount given is from $150 to $200 per annum. Information may be had by addressing the Secretary of the Board, 34 Vesey St., New York.

8. Rooms for Students.

Such rooms in Peter Hertzog Hall as may not be required for the use of the students of the Theological Seminary, are allowed to be occupied by the students of the College and Grammar School who have the ministry in view, and on the same conditions as the members of the Theological Seminary, *i. e.*, free of charge.

Prizes and Honors.

In every case where it is expected that a prize will be awarded for work done, it is distinctly announced that unless in the opinion of the examiners the work submitted is of such excellence as to merit a prize or prizes, no prize will be awarded.

All prizes and honors are open equally to members of the Classical and Scientific Departments, except in cases where prizes are specifically limited to one department by the donor. Each

competitor for a prize must sign a written declaration that the essay or other work offered by him is his original and unaided work. They are as follows:

1. Suydam Prize for Composition.

This prize, the gift of James Suydam, Esq., is a gold medal of the value of thirty dollars, or that sum in money, and is to be given to the member of the Senior Class who shall write the best English Composition on the subject assigned to the class by the Professor of Rhetoric. Competitors must hand in their compositions on or before April 18th. The student to whom the prize is awarded must copy his composition upon paper furnished by the College, and present it for preservation in the Library before he can receive the prize.

Subject for 1884: "Has Modern Science destroyed the Validity of the Argument from Design?" The prize was awarded to M. Linn Bruce, of Andes, N. Y.

Subject for 1885: "Carlyle—The Sources and Probable Duration of His Influence."

2. Suydam Prize in Natural Science.

This prize, the gift of James Suydam, Esq., is a gold medal of the value of thirty dollars, or that sum in money, and is to be awarded to the member of the Senior Class who shall have made the greatest attainments in Natural Science. The examination is upon all the subjects of Natural Science in the College course, and is conducted by the Professors in those subjects. The questions and answers are required to be written.

This prize was in 1884 awarded to George Davis, of White House Station, N. J.

3. Brodhead Classical Prize.

This prize is the gift of Rev. Dr. Jacob Brodhead and his son, J. Romeyn Brodhead, LL.D. It is the interest on $500, *i. e.*, thirty dollars, to be given to the best Senior Classical scholar on the following conditions:

First. "That those who offer themselves as candidates for it shall be subjected to a special examination, at a time to be fixed by the Faculty near to the close of the Senior year."

Second. "That the subject of the examination be a passage or play of some Classical author (not included in the College programme of Studies), to be selected by the Classical Professors, and to be announced at least one month before the time fixed for the examination."

Third. "A subject for an essay shall be announced at the same time, and the essay shall be given in on the day of examination."

Fourth. "Both the examination and the essay shall be taken into account in the adjudication of the prize. A law copy of the essay of the Prize man shall be handed in by him before the medal is put into his hands, to be preserved among the archives of College."

Subject for examination for 1884: "Plato's Republic," Books V., VI., VII.; and for Essay: "Plato's Doctrine of Ideas" (to be written in Greek). The prize was awarded to GEORGE DAVIS, of White House Station, N. J.

Subject for examination in 1885: *Cornificii ad C. Herennium*, (Tauchnitz Cic., Vol. I.); and the subject for the Essay (to be written in Latin): *Quatenus Cicero in Oratione Pro Lege Manilia observaverit præcepta rhetorica.*

4. BRADLEY MATHEMATICAL PRIZE.

This prize is given by Hon. Joseph P. Bradley, LL.D., and consists of a valuable Mathematical work, which is to be bestowed on the student of the Senior Class who shall present the best solution of a set of Mathematical problems to be proposed to the class by the Professor of Mathematics before the close of the second term. This prize was in 1884 awarded to JOHN EDWARD HILL, of Newark, N. J.

5. MYRON W. SMITH PRIZES.

These prizes were founded by Lyndon A. Smith, M. D., of Newark, in the name of his son, Adjutant Myron W. Smith, who was a graduate of the College, and who gave his life in the

late war to the cause of his country. They consist of the interest of $500, proportionately appropriated to two medals, one of gold and the other of silver, which are to be awarded respectively to the best and second best speakers of the Sophomore Class. Only those students who shall have pursued, in the College, the regular studies of the classical or a full scientific course from the beginning of the Freshman year, shall be allowed to contend for these prizes.

The competition for these medals shall take place before a committee of the Faculty, when the best and second best speakers shall be selected, to whom the medals shall be awarded, and six others shall receive honorable mention in their order of excellence. The medals shall be presented at Commencement.

In 1884, the first of these prizes was awarded to JOHN DEWITT, JR., of New Brunswick, N. J.; the second prize, to WARREN HARDENBERGH DIXON, of Jersey City, N. J.

6. TUNIS QUICK PRIZE IN SPELLING AND ENGLISH GRAMMAR.

This prize, the gift of P. Vanderbilt Spader, Esq., of New Brunswick, is the income of $300, at 6 per centum, and is to be presented to that member of the Freshman Class, Classical or Scientific, who shall pass the best examination in Spelling and English Grammar.

The examination is to be conducted in writing by the Professor of English Literature, at as early a day as convenient in the second College term, and under such regulations as the Faculty may from time to time establish.

The prize may be withheld from any or all papers offered, either for want of merit or for failure of proper competition. In case the prize be not awarded in any year, it is to be offered one year later to the members of the same class, on the same conditions as at first.

All regulations as to time, manner and conditions of awarding the prize are subject to change by the Board of Trustees.

It was awarded, in 1883–4, to EDWARD P. MERRILL, of New Brunswick, N. J.

7. Peter Spader Prizes in Modern History.

These prizes, the gift of P. Vanderbilt Spader, Esq., are two in number, the income of $400 and $300, respectively, at 6 per centum, and are to be awarded to those members of the Sophomore Class, Classical or Scientific, who shall present the best essays on some subject in Modern History, selected by the Professor of History, with the approval of the Faculty.

The subject is to be announced at the close of the Freshman year, and the competing essays are to be handed in on or before the third Monday in the third term of the Sophomore year.

The committee annually appointed by the Faculty may decline to award these prizes, or either of them, for want of merit in the essays, or for failure of proper competition. In case the prizes be not awarded in any year, they are to be offered one year later to the members of the same class, on the same conditions as at first.

Successful essays are to be copied on paper selected by the Faculty, and deposited in the College Library, before the writer receives his prize.

All regulations as to time, manner and conditions of awarding the prizes are subject to change by the Board of Trustees.

Subject for 1884: "The Rise and Growth of Prussia as a Continental Power." Successful contestants, first, John DeWitt, Jr., of New Brunswick; second, Louis Birge Chamberlain, of Newburg, N. Y.

Subject for 1885: "The Dutch in North America."

8. Appleton Memorial Prize in Moral Philosophy.

This prize was founded by a gift of $500, from the Rev. Samuel E. Appleton, D. D., in the name of his mother, Mrs. Elizabeth Appleton. It consists of thirty dollars, the interest of the above sum, and will be given "to the member of the Senior Class who shall pass the best examination in Moral Philosophy." The examination this year will be on "Calderwood's Handbook of Moral Philosophy," and will be written.

This prize was awarded, in the class of 1884, to GEORGE DAVIS, of White House Station, N. J.

9. WILLIAM WILSON PRIZE IN MENTAL PHILOSOPHY.

This prize consists of twenty-five dollars, given by the Rev. F. F. Wilson, and the Rev. P. Q. Wilson, in honor of their father, Captain William Wilson, of the New Jersey State Militia. It will be open to competition for students in both the Classical and Scientific Sections who are pursuing the study of Mental Philosophy, and will be bestowed on the one who shall pass the best examination on some work assigned by the Professor of Metaphysics.

Work for 1884: "Berkeley's Principles of Knowledge, Dr. Krauth's Edition, pages 72–122, and 193–281."

Prize awarded to WILLIAM HENRY BOOCOCK, (of the Junior Class,) of Coxsackie, N. Y.

Work for 1885, the same as for 1884.

10. WM. H. VAN DOREN PRIZE FOR THE BEST ESSAY ON CHRISTIAN MISSIONS.

This prize consists of twenty dollars, the gift of the Rev. William H. Van Doren, D. D. It is open to competition for members of the Senior and Junior classes in both Sections; and for members of the Theological Seminary.

In 1884, it was awarded to WILLIAM P. BRUCE, (of the Senior Class in the College,) of Andes, N. Y.

11. JUNIOR EXHIBITION.

Eight members of the Junior Class are chosen each year, in equal numbers from the Peithessophian and Philoclean Literary Societies, who deliver original speeches at an exhibition held on the Tuesday evening preceding Commencement. The selection is made by a committee of three persons, of whom one is chosen by each Society, and a third by the Faculty, and is based upon relative excellence as writers and speakers.

12. HART PRIZE IN ENGLISH LITERATURE.

A prize of twenty-five dollars is offered to the members of the Sophomore Class for the best essay upon a subject in Literature,

assigned by the Professor of that department, and awarded by a committee appointed by him.

This prize was awarded, in June, 1884, to WILLIAM SPADER WILLIS, of the Sophomore Class.

Subject for 1885: Longfellow.

13. THE BUSSING PRIZES FOR EX TEMPORE SPEAKING.

Mrs. Ann Bussing, of New York City, has given to the College $1,000, the income of which ($50 per annum) is to be expended each year for books, which shall be selected by the President of the College, and given as follows: The First Prize, of $30, to that member of the Senior Class who shall prove himself to be the best extemporaneous speaker; the Second Prize, $20, to the second-best extemporaneous speaker, of the Senior Class. The prizes are to be awarded by the Faculty of the College, or by a committee whom they shall name, and shall be awarded after a public debate to be held in the latter part of the college year. In awarding the prizes, "strict attention shall be given to logical and forcible presentation of thought, full and accurate information as to matters of fact, and grace and effectiveness in delivery."

The course of preliminary exercises in *ex tempore* debate, by which students in the earlier years of the course may be prepared to get the full advantage of training in the clear expression of intelligent thought upon matters of public interest, will be published in future catalogues.

14. VAN VECHTEN PRIZE—ESSAY ON CHRISTIAN MISSIONS.

A. V. W. Van Vechten, Esq., of New York, has founded, in honor of his mother, the late Louisa Van Vechten, and his father, Rev. Dr. Samuel Van Vechten, a prize of $60, by the gift of $1,000, the prize "to be given annually to that student of Rutgers College who shall be adjudged by the Faculty of the Theological Seminary of the Reformed Church of America, at New Brunswick, to have presented an article, original with himself, and the best submitted—the most conclusive and inspiriting to strengthen faith in and love for Foreign Missions." Essays to be presented on or before May 1st, of each year.

Library and Museum.

1. Libraries.

The Library of the College is open for consultation during each term, as follows: on Mondays, Tuesdays, Wednesdays, Thursdays and Fridays, from 8 to 8:40 A. M., and from 12 M. to 12:30 P. M., and from 2 P. M. to 4:30 P. M.; on Saturdays from 9 A. M. to 12 M. Students are allowed free access to the books, and are encouraged to become familiar with the proper methods of using a library for literary work. The collection of books has received considerable additions during the past year, and no effort will be spared to make it what the institution requires. Donations to this object, either in money or books, are earnestly solicited.

By the gift of a permanent fund of $1,000 from James Suydam, Esq., the Library is supplied with the leading learned periodical publications in the various departments.

By the courtesy of the Theological Seminary of the Reformed Church, the Sage Library of about 30,000 volumes is opened to the students of Rutgers, for consultation; and under certain limitations books are drawn from it as well. It is within three minutes' walk of the College campus.

2. Museum and Apparatus.

The Trustees solicit contributions from the friends of the College to the collections of the Museum. It is their wish to increase greatly the present valuable collections by additions in all departments. Donations of specimens illustrating Geology, Mineralogy, Natural History, Numismatics and Antiquities, and the Industrial Arts, are earnestly requested. Ample rooms are provided in the new Geological Hall for the proper preservation and display of such specimens. By the kindness of numerous friends, suitable cases have been provided to receive the col-

lections which the College already possesses, and they are now being arranged as rapidly as circumstances will allow.

The apparatus of the College for illustrating the various branches of Science, is extensive and serviceable. It has been obtained as the wants of the classes demanded, and comprises many of the recent additions to Chemical and Philosophical apparatus. The students in Analytical Chemistry are provided with the requisite facilities for making analyses. The arrangements for these departments in the buildings recently erected are of the most ample and convenient description.

Through the generosity of several friends of the College, and especially of ROBERT F. BALLANTINE, Esq., of Newark, and Col. JACOB J. JANEWAY, of New Brunswick, very important additions to the Scientific apparatus of the College have been made, particularly in the department of Electricity and its applications.

From Mr. SAMUEL M. WOODBRIDGE there has been received a gift of two fine assay balances, a crucible furnace, a muffle furnace for cupel and scorification assay, and various instruments used in assaying, amounting in value to $200 or more. By the aid of these additions to the assay department, advanced students are enabled to take a course in the practical assaying of ores.

REGISTER.

1. SOPHOMORE ORATORS.

JOHN DE WITT, JR., 1st Prize, ... New Brunswick.
WARREN HARDENBERGH DIXON, 2d Prize, . Jersey City.

The following are named in the order of their appointment according to merit:

L. B. CHAMBERLAIN, ... Newburg, N. Y.
G. E. TALMAGE, ... Amoy, China.
E. W. DEWEY, ... Fort Plain, N. Y.
W. HOCKMAN, ... Red Bank.
J. M. FARLEY, ... Fort Plain, N. Y.
A. L. STILLWELL, ... Somerville.

2. JUNIOR EXHIBITION.

ORATORS FOR 1884.

Philoclean Society.		*Peithessophian Society.*	
M. N. BEMUS,	Jamestown, N. Y.	W. H. BOOCOCK,	Coxsackie, N. Y.
W. E. FLORANCE,	New Brunswick.	A. VERMEULE,	New Brunswick.
E. K. LOSEE,	Upper Red Hook, N. Y.	C. DESHLER,	New Brunswick.
G. W. HART,	Metuchen.	F. S. SCUDDER,	Upper Red Hook, N.Y.

3. GRADUATING EXERCISES, JUNE 18TH, 1885.

HONORS.

GEORGE DAVIS,	White House,	*Latin Salutatory*,	1st Honor.
GEORGE BLAKELEY,	Middlebush,	*English Salutatory*,	2d Honor.
PETER CRISPELL,	Stone Ridge, N. Y.,	*Philosophical Oration*,	3d Honor.
JOHN EDWARD HILL,	Newark,	*Scientific Oration*,	4th Honor.
MATTHEW L. BRUCE,	Andes, N. Y.,	*Valedictory*,	Rhetorical Honor.

ORATIONS.

P. S. Beekman, New Brunswick. J. G. Meyer, Matteawan, N. Y.
Wm. P. Bruce, Andes, N. Y. C. E. Pattison, Metuchen.
H. E. Cobb, Flushing, N. Y. F. S. Smith, Jersey City.
B. E. Dickhaut, East New York, N.Y. C. W. F. Sproul, Keyport.
W. G. Ludlow, New Brunswick. J. A. Thompson, New Kingston, N. Y.
W. H. Luster, Elizabeth.

4. Prizes Awarded.

GENERAL PRIZES.

Van Doren Prize for Essay on Missions, . W. P. Bruce.

SENIOR PRIZES.

Brodhead Prize for Classics, . . . George Davis.
Suydam Prize for Composition, . . M. Linn Bruce.
Suydam Prize for Natural Science, . . George Davis.
Bradley Mathematical Prize, . . . John Edward Hill.
Appleton Prize for Moral Philosophy, . George Davis.
Bowser Prize for Best Thesis, . . . George H. Blakeley.

JUNIOR PRIZES.

Wilson Prize for Mental Philosophy, . William Henry Boocock.
Perlee Junior Orator Prize, . . . Frank Seymour Scudder.
Second Spader Prize for Modern History, (awarded in the Junior year,) . John Mitchell Allen.

SOPHOMORE PRIZES.

Myron W. Smith Prize for Declamation, 1st, John De Witt, Jr.
Myron W. Smith Prize for Declamation, 2d, Warren Hardenbergh Dixon.
Hart English Literature Prize, . . . William Spader Willis.
Spader Prize for Modern History, 1st, . John De Witt, Jr.
Spader Prize for Modern History, 2d, . Louis Birge Chamberlain.

FRESHMAN PRIZE.

Quick Prize for Grammar and Spelling, Edward P. Merrill.

5. Class Day Exercises.

IN THE CHAPEL.

Oration,	Wm. G. Ludlow,	New Brunswick.
Poem,	H. E. Cobb,	Flushing, L. I.
Class History,	P. Crispell,	Hurley, N. Y.
Class Prophecy,	D. Dunbar Sutphen,	Newark.
Presentation of Class Mementoes,	H. Van Brackle,	Hazlet.
Address to Undergraduates,	C. W. F. Sproul,	Keyport.

ON THE CAMPUS.

Ivy Oration,	J. A. Thompson,	New Kingston, N. Y.
Planting of the Ivy,	J. E. Hill,	Newark.
Ivy Ode,	H. E. Cobb,	Flushing, L. I.
Pipe Oration,	J. G. Meyer,	Matteawan, N. Y.
Address to the President,	P. S. Beekman,	New Brunswick.

6. Alumni Association.

OFFICERS FOR THE YEAR 1884–85.

Rev. W. E. Appleton, D.D., Class of '52,	President.
J. N. Carpender, Esq., Class of '66,	Vice Presidents.
Rev. C. E. Crispell, D.D., Class of '39,	
Rev. W. J. Leggett, Class of '72,	
Hon. N. W. Voorhees, Class of '47,	
Prof. I. E. Hasbrouck, Class of '65,	Treasurer.
John S. Voorhees, Class of '76,	Secretary.
Irving S. Upson, Class of '81,	Biographer.

ORATOR FOR 1885.

Rev. W. E. Griffis, Class of '69,	Primarius.
Hon. George H. Sharpe, Class of '47,	Secundus.

VEDDER LECTURER.

Rev. William H. Campbell, D.D., LL.D.,	New Brunswick.
Rev. George S. Bishop, D.D.,	Orange.

CATALOGUES.

Former students of the College, whether graduates or not, are earnestly requested to keep the College informed of any change in their address or occupation, of works published, offices held, etc., both to facilitate the sending of the annual catalogue, and to furnish material for general catalogues, when printed. Catalogues of the College, etc., will be sent to alumni or friends of the College who send to the Secretary their addresses, for this purpose.

It is desired to secure for the library a complete set of all the publications issued by the College or relating to it, or written or compiled by any one in connection with it, whether periodical or occasional. A complete collection of *Rutgersensia* would be of great value to the College and its friends.

QUINQUENNIAL (GENERAL) CATALOGUE.

Acting under a recent resolution of the Board of Trustees, the Librarian of the College, IRVING S. UPSON, A.M., is now collecting materials for a new edition of the General Catalogue, to be published in 1885. Any alumnus who, by accident, may have failed to receive a letter of inquiry, with blanks for answering questions proposed, will confer a favor upon the Trustees by addressing a line to the Librarian, stating this fact, and giving his address. Alumni are requested to send to the Librarian information of the death of any alumnus recently deceased, or who may die during the coming year.

RUTGERS COLLEGE GRAMMAR SCHOOL.

[RE-ORGANIZED, WITH A NEW HEAD-MASTER.]

This School, which is under the control of the Board of Trustees and is in intimate relation with the college, affords excellent facilities for preparing boys to enter the classical and scientific departments of the college. Special care is taken to drill the pupils thoroughly in the principles of Mathematics, the Languages, Natural Sciences and kindred subjects. Its work, however, is not restricted to candidates for college. It has courses of study adapted to fit young men for business life, or to give them a general education as good as the best academies offer. Exceptional attention will be paid to everything that may increase the efficiency and usefulness of this institution. The friends of the college, who have sons or wards to educate, will do well to examine carefully into its merits. Full information will be given upon application to the Head-Master, E. T. TOMLINSON, A.M., New Brunswick, N. J.

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CATALOGUE

OF

RUTGERS COLLEGE,

AT

NEW BRUNSWICK, N. J.

1885-'86.

CATALOGUE

OF THE

OFFICERS AND STUDENTS

OF

RUTGERS COLLEGE

AT

NEW BRUNSWICK, N. J.

1885-6.

FOUNDED A. D. 1770.

TRENTON, N. J.:
JOHN L. MURPHY, BOOK PRINTER.
1885.

Calendar.

1885.

December 23,	Wednesday: First Session ends. Vacation.

1886.

January 7,	Thursday: Second Session begins.
January 28,	Day of Prayer for Colleges.
April 6,	Tuesday: Second Session ends. Vacation.
April 14,	Wednesday: Third Session begins.
June 20,	Sunday: Baccalaureate Sermon.
June 21–22,	Monday (10 A. M.) and Tuesday: Examinations for admission.
June 22,	Tuesday: Meeting of Alumni; Exercises of the Literary Societies; Junior Exhibition in the Evening.
June 23,	Wednesday: Commencement. Vacation begins.
September 22,	Wednesday: First Session begins; recitations.
September 22,	Wednesday, 9 A. M.: Examinations for admission.
September 22,	Wednesday, 9 A. M.: Examinations for removal of June Conditions.
December 22,	Wednesday: First Session ends. Vacation.

1887.

January 6,	Thursday: Second Session begins.

TRUSTEES.

EX-OFFICIO.

HIS EXCELLENCY, LEON ABBETT, ... JERSEY CITY.

Governor of the State of New Jersey.

HON. MERCER BEASLEY, LL.D., ... TRENTON.

Chief-Justice of the State of New Jersey.

HON. JOHN P. STOCKTON, ... TRENTON.

Attorney-General of the State of New Jersey.

BY ELECTION.

Names.	*Residences.*	*Date of Election.*
MERRILL EDWARDS GATES, PH.D., LL.D., *President of the College.*	NEW BRUNSWICK,	March 7, 1882.
REV. GUSTAVUS ABEEL, D.D.,	Newark,	July 22, 1845.
REV. T. E. VERMILYE, D.D., LL.D.,	New York City,	July 24, 1849.
HON. JOHN HOPPER,	Paterson,	July 22, 1851.
MAURICE E. VIELE, ESQ.,	Albany, N. Y.,	July 27, 1853.
REV. DAVID D. DEMAREST, D.D.,	New Brunswick,	Arpil 13, 1858.
HON. JOSEPH P. BRADLEY, LL.D.,	Washington, D. C.,	June 29, 1859.
REV. FRANCIS M. KIP, D.D.,	Tompkinsville, S. I.,	Oct. 16, 1860.
HENRY L. JANEWAY, ESQ.,	New Brunswick,	April 8, 1862.
REV. GARRET C. SCHANCK,	Marlboro,	April 11, 1866.
STAFFORD R. W. HEATH, ESQ.,	Newark,	April 11, 1866.
REV. TALBOT W. CHAMBERS, D.D.,	New York City,	June 17, 1868.
REV. JOACHIM ELMENDORF, D.D.,	Poughkeepsie, N. Y.,	April 14, 1869.

Names.	*Residences.*	*Date of Election.*
Rev. Paul D. Van Cleef, D.D.,	Jersey City,	April 14, 1869.
William C. Fowler, Esq.,	Brooklyn, N. Y.,	April 13, 1871.
Samuel Sloan, Esq.,	New York City,	June 20, 1871.
Hon. George C. Ludlow,	New Brunswick,	June 17, 1873.
Hon. William A. Newell,	Olympia, W. T.,	June 17, 1873.
Rev. Isaac S. Hartley, D.D.,	Utica, N. Y.,	June 17, 1873.
S. O. Vanderpoel, M.D., LL.D.,	New York City,	June 22, 1875.
Rev. William Ormiston, D.D.,	New York City,	June 20, 1876.
Rev. John Gaston, D.D.,	Passaic,	June 20, 1876.
Hon. Henry W. Bookstaver,	New York City,	June 20, 1876.
Robert F. Ballantine, Esq.,	Newark,	June 20, 1876.
Rev. William Rankin Duryee, D.D.,	Jersey City,	March 5, 1878.
Rev. William J. R. Taylor, D.D.,	Newark,	June 18, 1878.
Rev. Abraham R. Van Nest, D.D.,	New York City,	Oct. 29, 1878.
William Clark, Esq.,	Newark,	Oct. 29, 1878.
Hon. George H. Sharpe,	Kingston, N. Y.,	March 4, 1879.
David Bingham, Esq.,	East Orange,	March 7, 1882.
George C. Churchill, Esq.,	Utica, N. Y.,	June 19, 1883.
Tunis G. Bergen, Ph.D.,	Brooklyn, N. Y.,	June 19, 1883.
Henry R. Baldwin, M.D.,	New Brunswick,	June 17, 1884.
Frederick Frelinghuysen, Esq.,	Newark,	June 16, 1885.
Ernest J. Miller, Esq.,	Albany, N. Y.,	June 16, 1885.

Rev. DAVID D. DEMAREST, D.D., ... New Brunswick.
Secretary of the Board.

JOHN C. ELMENDORF, Esq., . . . New Brunswick.
Treasurer.

Office—39 Albany Street.

James Thomas, *Janitor.*

FACULTY.

MERRILL EDWARDS GATES, PH.D., LL.D.,
PRESIDENT,
THEODORE FRELINGHUYSEN *Professor of Moral Philosophy.*

REV. WILLIAM HENRY CAMPBELL, D.D., LL.D.,
(EX-PRESIDENT,)
Professor of the Evidences of Christianity.

GEORGE H. COOK, LL.D.,
VICE-PRESIDENT,
Professor of Geology and Agriculture.

REV. T. SANDFORD DOOLITTLE, D.D.,
COLLEGIATE CHURCH *Professor of Rhetoric, Logic, and Mental Philosophy.*

REV. JACOB COOPER, D.D., D.C.L.,
Professor of the Greek Language and Literature.

REV. CARL MEYER, D.D.,
Professor of Modern Languages.

FRANCIS CUYLER VAN DYCK, A.M.,
Professor of Physics and Experimental Mechanics.

EDWARD A. BOWSER, C.E., LL.D.,
Professor of Mathematics and Engineering.

GEORGE BENJAMIN MERRIMAN, A.M.,

Professor of Mathematics and Astronomy.

PETER TOWNSEND AUSTEN, PH.D., F.C.S.,

Professor of General and Applied Chemistry.

REV. CHARLES EDWARD HART, D.D.,

Professor of the English Language and Literature.

AUSTIN SCOTT, PH.D.,

VOORHEES *Professor of History, Political Economy, and Constitutional Law.*

FRANCIS AUGUSTUS WILBER, M.S.,

Adjunct Professor of Analytical Chemistry.

EDGAR S. SHUMWAY, A.M.,

Professor of the Latin Language and Literature.

LOUIS BEVIER, PH.D.,

Adjunct Professor of Modern Languages.

JOHN THOMAS HONEYCUTT, 1st Lieutenant 1st U. S. Artillery,

Professor of Military Science and Tactics, and of Graphics.

IRVING STRONG UPSON, A.M.,

Librarian.

The names of the Faculty are arranged according to seniority of appointment, with the exception of the first two.

CATALOGUE OF STUDENTS

FOR THE YEAR BEGINNING SEPTEMBER 16, 1885.

GRADUATE STUDENTS.

Names.	*College.*	*Residences.*	*Rooms.*
PENNINGTON RANNEY, A.B., Chemistry.	Princeton,	Elizabeth,	Elizabeth.
LOUIS F. RUF, B.S., Greek and Latin.	Rutgers,	Freehold,	Remsen Ave. and George Street.
ADRIAN VERMEULE, JR., A.B., History.	Rutgers,	New Brunswick,	Terrace Hill.
LOUIS A. VOORHEES, A.B., Chemistry.	Rutgers,	New Brunswick,	75 Carroll Place.

SENIOR CLASS.

Classical Section.

Names.	*Residences.*	*Rooms.*
George VanNest Baldwin,	New Brunswick,	103 George St.
Lewis Birge Chamberlain,	New Brunswick,	29 Hertzog Hall.
Edward Wilkins Dewey,	Fort Plain, N. Y.,	72 Bayard St.
John De Witt, Jr.,	New Brunswick,	Seminary Place.
Warren Hardenbergh Dixon,	Jersey City,	96 George St.
Charles Baylis Ludlow,	New Brunswick,	81 Albany St.
De Witt Van Dyke Reiley,	Astoria, L. I.,	College Ave.
Aaron Longstreet Stillwell,	Somerville,	57 Albany St.
Peter Stillwell,	White House,	57 Albany St.
Thomas Alfred Stoddart,	Rahway,	Rahway.
George Edwin Talmage,	New Brunswick,	52 Hertzog Hall.

Scientific Section.

Names.	*Residences.*	*Rooms.*
Charles S. Cathcart,	New Brunswick,	62 Welton St.
Elmore De Witt,	Wallkill, N. Y.,	83 Bayard St.
Clarence M. Du Bois,	Bridgeton,	83 Bayard St.
John Moyer Farley,	Fort Plain, N. Y.,	58 Albany St.
William Hockman,	Red Bank,	79 George St.
John Howard Porter,	Bordentown,	Bordentown.
Joseph B. Reynolds,	Bordentown,	Bordentown.
Frank W. Ribble,	East Millstone,	East Millstone.
George Anthony Viehman,	New Brunswick,	38 Dennis St.
William H. Waldron,	New Brunswick,	143 George St.

JUNIOR CLASS.

Classical Section.

Names.	*Residences.*	*Rooms.*
William Samuel Bishop,	East Orange,	27 Bayard St.
Stephen DuBois Demarest,	New Brunswick,	Seminary Place.
Albert Benjamin Herman,	Warsaw, N. Y.,	52 Hertzog Hall.
William Pierson Merrill,	New Brunswick,	Raritan Ave.
Henry Holmes Palmer, Jr.,	New Brunswick,	College Ave.
Franklin Ambler Pattison,	Metuchen,	Metuchen.
Frank J. Sagendorph,	Hudson, N. Y.,	College Ave.
Asa Wynkoop,	Catskill, N. Y.,	College Ave.

Scientific Section.

Names.	*Residences.*	*Rooms.*
Warren James Brodie,	Geneseo, N. Y.,	27 Bayard St.
Thurston Walker Challen,	New Brunswick,	Hamilton St.
Lawrence Edward McCabe,	East Hampton, N. Y.,	61 New St.
Harry Joseph March,	New Brunswick,	Somerset St.
David Trumbull Marshall,	Metuchen,	Metuchen.
Harry Atwater Smith,	Raritan,	96 George St.
Harold Tait,	Metuchen,	Metuchen.
Burton Morss Tremper,	Kingston, N. Y.,	96 George St.
Samuel Herbert Voorhees,	Princess Anne, Md.,	71 Carroll Place.
Isaac Lewis Winckler,	New Brunswick,	Hardenbergh St.

SOPHOMORE CLASS.

Classical Section.

Names.	*Residences.*	*Rooms.*
Wm. Armitage Beardslee,	West Troy, N. Y.,	14 Hertzog Hall.
Melvin Day Brandow,	New Brunswick,	Hamilton St.
Fred Hutchinson Cook,	Bound Brook,	Bound Brook.
Richard Jones Geisinger,	Bridgeton,	56 Albany St.
Baldwin Hasbrouck,	Bound Brook,	Bound Brook.
Louis Brodhead Hasbrouck,	Bound Brook,	Bound Brook.
Frank Lawyer Mayham,	Newark,	86 Bayard St.
Harmon Bay Niver,	Ancram Lead Mines, N. Y.,	Hamilton St.
Frederick William Parker,	New Brunswick,	College Ave.
Sherman Grant Pitt,	Crary's Mills, N. Y.,	Hamilton St.
Henry Livingston Rupert,	East Millstone,	East Millstone.
Herbert Giles Sharpley,	Mitchellville, Iowa,	14 Hertzog Hall.
Elias Wortman Thompson,	Readington,	33 Hertzog Hall.
Maurice Joseph Thompson,	New York, N. Y.,	Cor. New and Kirkpatrick Sts.
John Howard Voorhees,	Middlebush,	Middlebush.
Oscar McMurtry Voorhees,	Bedminster,	College Farm.
Ferdinand Schenck Wilson,	Millstone,	Millstone.
Charles Sterling Wyckoff,	Woodhaven, L. I.,	Hamilton St.

Scientific Section.

Names.	*Residences.*	*Rooms.*
Edwin Moore Alden,	Metuchen,	Metuchen.
Benjamin George Divine,	Elizabeth,	Elizabeth.
Richard Donne Divine,	Elizabeth,	Elizabeth.
Willard Avery Heacock,	Gloversville, N. Y.,	80 Paterson St.
William James Lansley,	Elizabeth,	Elizabeth.
Henry W. Lockett,	Cranford,	Cranford.
George Morris,	New Monmouth,	New Monmouth
Isaac Wright Reynolds,	Montrose, N. Y.,	Remsen Ave. and George St.
William Bishop Tomkins,	East Orange,	New and Kirkpatrick Sts.
Edward Austin Waldron,	New Brunswick,	143 George St.

FRESHMAN CLASS.

Classical Section.

Names.	*Residences.*	*Rooms.*
Harry Randolph Anderson,	Rahway,	Rahway.
Charles Best Benson,	Hudson, N. Y.,	58 Albany St.
Arthur J. Collier,	Coxsackie, N. Y.,	Hamilton St.
Byron Cummings,	West Bangor, N. Y.,	86 Bayard St.
John Ten Eyck DeWitt,	Wallkill, N. Y.,	Hamilton St.
Samuel DeWitt Drury,	Rhinebeck, N. Y.,	79 George St.
George VanWagenen Duryee,	Jersey City,	78 Bayard St.
William Watson Hallock,	Brooklyn, N. Y.,	Easton Ave.
Isaac McMunn Holly,	New York City.	9 Paterson St.
Charles Edwin Ingersoll,	New Brunswick,	Easton Ave.
Stephen Jackson Keefe,	Rahway,	Rahway.
James Harvey Keeling,	Utica, N. Y.,	17 Hertzog Hall.
George Armstrong Liggett,	Rahway,	Rahway.
Harvey Losee,	Upper Red Hook, N. Y.,	79 George St.
Charles Maar,	Poughkeepsie, N. Y.,	17 Hertzog Hall.
Kumakichiro Oishi,	Tokio, Japan,	57 Albany St.
Sam Corle Schenck,	Lambertville,	78 Bayard St.
Clarence Goodwin Scudder,	Vellore, India,	79 George St.
Charles Judson Scudder,	Creston, Neb.,	79 George St.
William Campbell Sebring,	Saugerties, N. Y.,	Hamilton St.
George Joseph Steinmetz,	New York City,	9 Paterson St.
George Boice Thompson,	Colt's Neck,	George St.

Scientific Section.

Names.	*Residences.*	*Rooms.*
Albert Cornelius Arend,	Trenton,	Trenton.
Howard Elting,	New York City,	79 George St.
Harold Dissy Force,	Newark,	4 Schuyler St.
Richard Thurston Greene,	Elizabeth,	Elizabeth.
Albert Bodwell Harrison,	Irvington,	Irvington.

Names.	*Residences.*	*Rooms.*
HOWARD CROSBY HASBROUCK,	Bound Brook,	Bound Brook.
EDWARD HOWELL,	Morristown,	86 Bayard St.
ROBERT HAWTHORN INGERSOLL,	Mays Landing,	Hamilton St.
JAMES HASBROUCK LEFEVRE,	Middlebush,	Middlebush.
CORNELIUS BRUYN MARSHALL,	Metuchen,	Metuchen.
WILLIAM SHIELDS MYERS,	Sidney Plains, N. Y.,	Hamilton St.
FRANK D. NORRIS,	Shavertown, N. Y.,	Hamilton St.
WILLIAM CONDIT OGDEN,	Parsippany,	Hamilton St. and Easton Ave.
FRANK HALSEY SKINNER,	Belleville,	4 Schuyler St.
JOHN PHILLIPS STREET,	Beverly,	Hamilton St.
THORFIN TAIT,	Metuchen,	Metuchen.

SPECIAL STUDENTS.

NOT CANDIDATES FOR A DEGREE.

Names.	*Residences.*	*Rooms.*
GEORGE A. BALLANTINE,	Newark,	Newark.
WALTER ALMER BARROWS,	Mount Holly,	Remsen and George Street.
WILLIAM LEWIS DAYTON,	Brooklyn, N. Y.,	9 Paterson St.
SAMUEL DODDS,	Anna, Ill.,	Remsen and George Street.
THOMAS H. FLYNN,	Albany, N. Y.,	Throop Ave.
HARRY DREER MCCORMICK,	Newark,	Newark.
KOJIRO MATSUGATA,	Tokio, Japan,	9 Paterson St.
GEORGE PERRY MORRIS,	Montclair,	145½ George St.
EDWIN J. POND,	Philadelphia,	Hamilton St.
JOHN A. VANDERPOOL,	New York City,	College Ave.
MARTIN G. VAN SLYKE,	Coxsackie, N. Y.,	27 Bayard St.

SUMMARY.

Graduates	4	Sophomores	28
Seniors	21	Freshmen	38
Juniors	18	Special Students	11
		Total	120

Classical Department.

1. Requisites for Admission.

Examinations for admission to the College will be held on Monday and Tuesday of Commencement week, (see Calendar, page 2,) beginning at 10 o'clock Monday morning. Applicants for admission may also be examined on the Wednesday after the fifteenth of September, each year, at 9 A. M. Students who can do so are advised to be present for examination in June.

Examinations will be both written and oral.

Candidates for admission to advanced classes must sustain a satisfactory examination upon the subjects previously studied by the class which they propose to enter, as well as on those required for admission into the Freshman Class. Under this regulation, students are admitted at any time during the Collegiate year.

Students who desire to pursue selected branches of study may do so, if properly prepared to pursue them with the regular classes. Special provision is made for such students in the Scientific Department. All such students are expected to pass examinations with the class with which they study.

It is expected that students who present themselves will be prepared, by careful study and by *reviews* of their work, to pass successfully a thorough examination on the subjects which are required.

Only such students are admitted with conditions as are, in the opinion of the examiners, so nearly prepared as to be able to make up all deficiencies during the first two months of the term, meanwhile maintaining a good standing in their class.

Conditioned students will have an opportunity given them to remove their entrance conditions as early as possible in the first term. It is expected that *all entrance conditions* will be made up before the Thanksgiving recess.

SLOAN PRIZES FOR THE BEST ENTRANCE EXAMINATIONS, CLASSICAL COURSE.

A FIRST PRIZE OF ONE HUNDRED DOLLARS in cash and a SCHOLARSHIP YIELDING $300, to apply on term bills; and a SECOND PRIZE OF FIFTY DOLLARS in cash and a SCHOLARSHIP YIELDING $300, to apply on term bills, will be awarded to the students who shall be adjudged by the Examiners to have passed the best examination among the applicants for admission to the Freshman Class, in 1886. The names of the successful candidates, and of the schools at which they prepared for College, will be printed in the annual catalogue. The cash prizes will be awarded, one-half at matriculation and one-half at the end of the second term of the Freshman year. The scholarship funds will be applied to cancel term bills for tuition during the course, and will be forfeited if the student's general average on the work of the year falls below 80 on a scale of 100.

These two cash prizes have been given for four years by Hon. SAMUEL SLOAN, of New York, a member of the Board of Trustees.

The FIRST PRIZE for the Best Entrance Examination, September, 1885, was awarded to JAMES HARVEY KEELING, who was prepared at the Utica Free Academy, N. Y., GEORGE C. SAWYER, A.M., Principal.

The SECOND PRIZE was awarded to CHARLES MAAR, who was prepared at J. R. Leslie's English and Classical School, of Poughkeepsie, N. Y.

The following, or a full equivalent, are the requirements for admission to the Freshman Class:

LATIN.—Harkness', or Allen and Greenough's, or Gildersleeve's Latin Grammar, including the principles of Prosody.

The first part of Fischer's Manual of Latin Grammar and Composition, or Jones' Latin Composition, or the first 44 Sections of Arnold's Latin Prose Composition.

Cæsar, Four Books of the Gallic War, [or Books I. and II. and Sallust's Catiline].

Virgil, Æneid, 6 Books.

Seven Orations of Cicero, of which it is recommended that the orations for the Poet Archias, on the Manilian Law, and for King Deiotarus shall be three.

Questions on the subject-matter, the history, the geography and the mythology involved in the Latin read. *Students will be tested in reading "at sight" easy Latin (e. g., Cæsar, Sallust, Cicero, Quintus Curtius); and a map of Italy, to be drawn from memory, at the examination, will be required, together with familiarity with the classical geography of Gaul and Spain; and Smith's Smaller History of Rome (or an equivalent history of this period) to the time of the Empire.*

GREEK.—Hadley's or Goodwin's Greek Grammar, including the principles of Prosody, and of *Accentuation.*

Xenophon's Anabasis—three books, or an equal amount of Goodwin's Greek Reader.

Arnold's First Greek Book, or Whiton's First Greek Book, entire; and Jones' Exercises in Greek Composition or Sidgwick's First Greek Writer, Introduction and 60 exercises.

Homer—The Iliad, three books (omitting the catalogue of the ships).

Questions on the subject-matter, etc., as above.

Greek History will be required, Smith's Smaller History of Greece, or an equivalent; students will be tested at the entrance examinations in reading at sight easy Greek prose; and a map of Greece, with a good knowledge of the Geography of the Greek Islands and of Asia Minor, will be required.

MATHEMATICS.—Arithmetic complete, including the Metric System.

Algebra through Quadratic Equations, including Radicals; or the first 18 chapters of Wentworth's Complete Algebra.

Plane Geometry—four books of Wentworth, or an equivalent, *including the Problems and Exercises.*

Careful attention should be given to the *exercises* in Geometry, as they greatly aid in acquiring readiness in geometrical reasoning.

THE ENGLISH BRANCHES:

Geography:—

English Grammar:—

Spelling:—

History of the United States (Johnston's History of the United States; Higginson's Young Folks' History; Swinton's Condensed History of United States).

A short English essay is also required, to be written at the examination, on some theme drawn from books announced in advance; the essay to be correct in spelling, punctuation, division into paragraphs, grammar and expression.

In June and September, 1886, the themes will be drawn from these books, which all students who apply for admission then should have read carefully: Holmes' *Autocrat of the Breakfast Table;* Scott's *Kenilworth* and *Lay of the Last Minstrel;* and Shakespeare's *Coriolanus.*

In 1887, students should be familiar with Shakespeare's *King Lear;* Tom Brown's *School Days at Rugby;* Goldsmith's *Vicar of Wakefield;* Wordsworth's *Ode on Immortality.*

2. SUGGESTIONS IN REGARD TO PREPARATION.

LATIN.—In preparing in Latin, the student should give close attention to the regular prose constructions of the language, and especially, in reading Cæsar or Sallust, to the forms of "indirect discourse." He should be thoroughly drilled in the use and the force of the moods and *tenses*, the consecution of tenses, the gerundive construction, etc., and should be taught to analyze the sentence into subject and predicate, and the words, phrases or clauses which modify the subject and the predicate.

LATIN COMPOSITION.—The student should have as much exercise in writing Latin as possible. From the first, exercises in rendering English into Latin, both orally and in writing, are earnestly recommended.

PRONUNCIATION.—The system followed is the Roman. For correctness of pronunciation, the rules of quantity are necessary

for those who have not been thoroughly accustomed to the correct sound of the Latin words.

GREEK.—The applicant must be thoroughly familiar with the leading principles of the whole Grammar, including accent, quantity and prosody.

In pronunciation, the accent must be followed in prose; but in poetry, regard will be had only to quantity.

Work done in reading other authors than those named in the requirements will be accepted, provided the pupil can pass upon a *full* equivalent.

MATHEMATICS.—Attention is especially called to the Metric System of Weights and Measures, a practical knowledge of which is indispensable, since it is *used* in the class-room; and to the *essential importance of a thorough preparation in the elements of Algebra*, on which subsequent success in Mathematics so much depends. The mistake is often made of passing too hurriedly over the first few chapters of Algebra. The whole book will be more quickly and surely mastered if the first part be studied slowly and thoroughly.

In preparing in Mathematics the student *should acquire a proficiency and readiness in the application of the principles; and to that end the careful solution of numerous and varied examples is earnestly recommended.* It is also desirable to cultivate habits of neatness and order in the presentation of work on the blackboard, or on paper.

UNITED STATES HISTORY.—Candidates for admission are examined in the History of the United States, with special reference to the colonization of the several States, the forms of government which existed previous to the War for Independence, the causes and principal events of that war, the period of the Confederation, the establishment of the Federal Constitution, with the general history subsequent to that event.

3. Course of Instruction.

The Course of Instruction occupies four years, with three terms in each year.

The following is a scheme of the studies of the course. This scheme is not always strictly followed, either in the order of studies or in the use of the particular text-books named; but it furnishes an exhibit of the amount of work required of students during the four years, and indicates to candidates for advanced standing the equivalents which will be accepted from them:—

FRESHMAN CLASS.

Exercises during the year in Composition and Declamation.
Bible-Class, Sabbath morning.

FIRST TERM.

1. Latin.—Cicero De Amicitia; Oral and Written Composition; Shumway's Latin Synonymes; Halsey's Etymology.
2. Greek.—Lucian's Timon, or three books of Homer; Sidgwick's First Greek Writer, beginning with the 61st Exercise.
3. Mathematics.—Wentworth's Geometry, from Book V.
4. Rhetoric.—Kellogg; Lectures; Essays.
5. Physiology.—Dalton; Lectures.

SECOND TERM.

1. Latin.—Livy; Composition; Roman History, Period of the Kings and the Early Republic.
2. Greek.—Demosthenes' Olynthiac Orations, 2d and 3d, and one Philippic; Sidgwick's First Greek Writer finished; Jebb's Primer of Greek Literature.
3. Mathematics.—Wentworth's Geometry completed; Wentworth's Algebra from Logarithms.
4. English Literature.—History of the English Language; Study of Words, Trench.
5. Elocution.—Lectures.
6. Comparative Zoölogy.—Orton.

THIRD TERM.

1. Latin.—Horace; Mythology; Roman History, Later Republic, Early Empire.
2. Greek.—Isocrates' Panegyric, Ed. Felton; Wilkins' Manual of Greek Prose.
3. Mathematics.—Wentworth's Algebra completed.
4. Botany.—Gray.
5. English Literature.—An English Author.
6. English Composition.—Exercises.

SOPHOMORE CLASS.

Exercises during the year in Composition and Declamation.
Bible-Class, Sabbath morning.

FIRST TERM.

1. LATIN.—Cicero's De Oratore and the Second Philippic; Latin Composition; Antiquities.
2. GREEK.—Sophocles' Œdipus Rex; Wilkins' Manual of Greek Prose Composition.
3. INORGANIC CHEMISTRY.—Lectures, with Experiments, Barker.
4. MATHEMATICS.—Wentworth's Trigonometry, Plane and Spherical.
5. MODERN HISTORY.—Freeman's Outlines, with Essay-Writing.
6. ENGLISH LITERATURE.—An English Author; Essays in Literary Criticism.

SECOND TERM.

1. LATIN.—Tacitus; Roman History, The Empire; Composition.
2. GREEK.—Thucydides, one book; Wilkins' Manual of Greek Prose Composition.
3. MATHEMATICS.—Trigonometry completed; Bowser's Analytic Geometry.
4. MODERN HISTORY.—Freeman's Outlines, with Essays by the Class.
5. ENGLISH LITERATURE.—An English Author; Essays in Literary Criticism.
6. INORGANIC CHEMISTRY.—Lectures, with Experiments, Barker.

THIRD TERM.

1. LATIN.—Pliny's Letters, Terence or Plautus; History of Latin Literature.
2. GREEK.—Aristophanes' Knights, Koch's Ed.; Wilkins' Manual of Greek Prose Composition completed.
3. MATHEMATICS.—Bowser's Analytic Geometry.
4. CONSTITUTIONAL HISTORY OF ENGLAND.—Creasy.
5. ENGLISH LITERATURE.—An English Author; Essays in Literary Criticism.

JUNIOR CLASS.

Exercises during the year in Composition and Original Declamation.
Bible-Class, Sabbath Morning.

FIRST TERM.

1. PHYSICS.—Deschanel; Lectures, with Experiments.
2. MENTAL PHILOSOPHY.—Porter's Elements of Intellectual Philosophy and Lectures, with Essays on Metaphysical Subjects.
3. GERMAN.—Ahn's German Method, Fischer, Part I.
4. LATIN.—Quintilian, Roman Law; Writing Latin.

ELECTIVE STUDIES, at least one of which is to be pursued:

1. MATHEMATICS.—Differential and Integral Calculus, Bowser.
2. CHEMISTRY.—Experimental Chemistry, Eliot & Storer; Qualitative Analysis, Fresenius; Laboratory Practice.
3. ENGLISH.—Sweet's Anglo-Saxon Primer; Chaucer.
4. GREEK.—Aristotle's Ethics, Books I. and II.
5. FRENCH.

SECOND TERM.

1. PHYSICS.—Deschanel; Lectures, with Experiments.
2. MENTAL PHILOSOPHY.—Porter's Elements of Intellectual Philosophy, and Lectures; Essays on Metaphysical Subjects.
3. LOGIC.—Jevons-Hill's Logic.
4. GREEK.—Plato's Phædo, Wagner's Edition; Buckholz's Anthology, 2d Bändchen.
5. GERMAN.—Wackernagel's Deutsches Lesebuch; Fischer's Ahn, Part II.

ELECTIVE STUDIES, at least one of which is to be pursued:

1. MATHEMATICS.—Calculus, Bowser.
2. CHEMISTRY.—Qualitative Analysis, Fresenius; Lectures; Laboratory Practice.
3. ENGLISH.—Shakespeare.
4. LATIN.—De Natura Deorum, or Justinian; Writing Latin.
5. FRENCH.

THIRD TERM.

1. ASTRONOMY.—Newcomb and Holden.
2. HISTORY OF CIVILIZATION.—Guizot; Essays.
3. GERMAN.—Classic Authors.

ELECTIVE STUDIES, either Greek or Latin and at least one other of which is to be pursued:

1. LATIN.—Catullus, Tibullus, Propertius.
2. MATHEMATICS.—Calculus, Bowser.
3. CHEMISTRY.—Qualitative Analysis, Fresenius; Lectures; Laboratory Practice.
4. ENGLISH.—Milton.
5. GREEK.—Plato's Republic, Books V. and VI.
6. FRENCH.

SENIOR CLASS.

Exercises during the year in Composition and Original Declamation, Bible-Class, Sabbath morning.

FIRST TERM.

1. MORAL PHILOSOPHY.—Calderwood's Handbook; Lectures; Essays.
2. POLITICAL ECONOMY.—Walker and Perry; Lectures.
3. PHYSICS.—Deschanel; Lectures.

ELECTIVE STUDIES, at least one of which is to be pursued:

1. GREEK.—Selections from Aristotle's Organon with Porphyry's Isagoge.
2. ASTRONOMY.—Loomis' Practical Astronomy; Observatory Work; Lectures.
3. MODERN LANGUAGES.—German or French.
4. CHEMISTRY.—Quantitative Analysis, Fresenius; Lectures; Laboratory Practice.
5. LATIN.—Rhetorical or Legal.
6. HISTORY.—Comparative Study of the Growth of Modern Constitutions.
7. HEBREW.—Extra hours.

SECOND TERM.

1. MORAL PHILOSOPHY.—Calderwood; Lieber's Political Ethics; Lectures.
2. INTERNATIONAL LAW.—Woolsey.
3. CONSTITUTION OF THE UNITED STATES.—Pomeroy and Cooley; Essays.
4. GEOLOGY.—Lectures, the last half of the term.

ELECTIVE STUDIES, at least one of which is to be pursued:

1. LATIN.—Cicero, Academics; Cicero's Philosophy.
2. ASTRONOMY.—Loomis' Practical Astronomy; Observatory Work; Lectures.
3. MODERN LANGUAGES.—German, French.
4. CHEMISTRY.—Quantitative Analysis, Fresenius; Lectures; Laboratory Practice.
5. HEBREW.—Extra hours.
6. GREEK.—Buckholz's Greek Anthology, Part II.
7. HISTORY.—European History of the last Century.

THIRD TERM.

1. MORAL PHILOSOPHY.—Butler's Analogy; Lectures and Discussions in Practical Ethics, and the Duties of Citizenship.
2. GEOLOGY.—Lectures.
3. ARCHITECTURE.—Lectures.

ELECTIVE STUDIES, at least one of which is to be pursued:

1. GREEK.—Trendelenburg's Elementa Log., Aristot.; Lectures on the Organon.
2. MODERN LANGUAGES.—German, French.
3. CHEMISTRY.—Quantitative Analysis, Fresenius; Lectures; Laboratory Practice.
4. ASTRONOMY.—Loomis' Practical Astronomy; Observatory Work; Lectures.
5. LATIN.
6. HISTORY.—The Historical Drama—Shakespeare, Schiller, &c.
7. HEBREW.—Extra hours.

4. Remarks on the Course of Study.

In the above schedule all the studies of the Freshman and Sophomore years are prescribed, and are intended to be of such a character as will furnish the sound basis of a liberal education, whatever profession or career is subsequently chosen. During the Junior and Senior years, certain subjects are required of all regular students, while other subjects are made elective, at least one of which must be pursued by each student, in the Junior year; and at least two in the Senior year.

MORAL PHILOSOPHY, PRACTICAL ETHICS AND THE DUTIES OF CITIZENSHIP.

Moral Philosophy is taught during the Senior year by the study of text-books, by comments and criticisms, and by lectures. Full and intelligent discussion in the class-room is encouraged, in the belief that mere memorizing and reciting does not so teach such truth as to make it vitally the student's own.

The definite aim of the work in this department is not simply to set before the student what certain authors have written concerning theories of morality and virtue; but to make the study of the fixed and eternal distinction between right and wrong tend directly, so far as possible, to the voluntary and intelligent acceptance of the moral law, by every student, in the daily and hourly direction of his life.

Lieber's Political Ethics is made the basis of part of one term's work.

A Course of Lectures on Practical Ethics is given; and lectures and discussions on the Duties of Citizenship are made an especial feature of this course of study.

A Sabbath morning Bible-Class, which all the students attend, is conducted by the President.

THE EVIDENCES OF CHRISTIANITY.

During the second and third terms, a course of lectures on the Evidences of Christianity is given to the Senior Class by the ex-President of the College.

LANGUAGES.

LATIN.—While the chief purpose kept before the student during the earlier portion of the course is the thorough mastery of the language, as fast as is practicable the study of the history, institutions and literature of the Romans is pursued in connection with the Latin read. In the selection of text, care is taken to cover the principal periods of the literature, but chief prominence is given to those works which present the most valuable subject-matter for the student of Roman civilization and culture. In the later portion of the curriculum special courses are given in Roman Oratory, Law, Philosophy, etc.

From the beginning of the course instruction is given in part by means of questions and answers in Latin. Optional classes are formed for the better development of this method, and for the study of the History, Social Life and Institutions of the Romans.

Students should have Harpers' or White's Latin-English, and White's English-Latin Lexicons, and a Classical Atlas.

GREEK.—The Classical Greek authors are read by the whole class during the entire Freshman and Sophomore years, and one term of the Junior year; also, by students who elect Greek, during the whole of the Junior and Senior years. The course is intended to embrace at least one complete treatise from a leading author belonging to each period from Homer to Lucian. While the amount read is distinctly indicated by the Catalogue, it is the purpose to vary the authors, or the portions from the same author, from year to year.

Promising students are encouraged to take special courses of study, in addition to the regular class work; and private instruction, supplemented by an efficient library, is constantly given. The following books of reference are recommended: Smith's Classical Dictionaries, 6 vols.; Jelf's Greek Grammar; Krüger's Greek Grammar and Kühner's ausführliche griechische Grammatik; Liddell and Scott's Lexicon, 7th Oxford Edition; Grote's History of Greece, and Mahaffy's History of Greek Literature.

ENGLISH LANGUAGE AND LITERATURE.—The course in English embraces, with the elective study of Anglo-Saxon, the required study of the history of the English language and its literature, and the critical reading of English classics. A course of private reading is prescribed, upon which examinations are held. Essays in literary criticism are required during the Sophomore year. The elective study of the language and literature is pursued during the Junior year.

GERMAN is taught, three hours per week, to students in both sections of the class, throughout the Junior year; and, in addition to this, a lecture is given, once a week, upon German Literature. While accurate grammatical work is insisted upon, the aim of the course is to enable the student to read ordinary German prose with ease. Exercises in writing German are continually required.

In the Senior year, German may be pursued as an elective study by the classical students; and German text-books are used with certain students in the Chemical Laboratory.

FRENCH is taught throughout the Freshman year, in the Scientific Course, and is continued during the Sophomore year, preparing the students thoroughly for the use of French text-books in scientific subjects. Classes use *French text-books in Physics*, and in the *History of Civilization*. The aim of the course is to make the grammatical and linguistic training in the study of this language as valuable to the student as possible; and to accustom him to use French books and periodicals with perfect freedom in his professional studies and work.

In the Classical Course, instruction in French is offered to those who wish to take it as a study outside the course, and a course in French has been made an elective study for the Junior year.

HEBREW.—This language is taught as an extra study during the Senior year if any students desire to pursue it.

MATHEMATICS AND ASTRONOMY.

The required studies in Mathematics include Geometry, with problems and exercises in Geometrical invention; Algebra and Plane and Spherical Trigonometry, with their application to problems in Surveying and Astronomy, and Analytic Geometry. These are the mathematical studies of the first two years.

Those who wish to do so elect in the Junior year the study of the Calculus and its applications.

Care is taken throughout that every principle receive a rigorous demonstration and that it be applied as far as is practicable. No principle is thoroughly learned by the student until he can apply it.

Elementary Astronomy is taught during the third term to all the members of the Junior Class. The study of Theoretical and Practical Astronomy, with the use of the instruments of the Observatory, is elective in the Senior year. It is desirable that those who intend to take elective Astronomy should take the elective Mathematics of the Junior year, that they may be prepared for lectures in the more advanced part of the course.

The DANIEL S. SCHANCK OBSERVATORY of Rutgers College is well equipped for the work of practical instruction, being supplied with a six and one-half inch refracting telescope, a meridian circle with four-inch object glass, a chronograph, a repeating circle, and other instruments. It is in telegraphic connection with other observatories.

The refined methods of measurement which the use of astronomical instruments requires, the discussion of results, and the determination of errors, afford a means of mental training unsurpassed in value. Add to these the familiarity with spherical astronomy and with the constellations which this study imparts, and the advantage gained is a strong recommendation of its pursuit.

The Observatory was designed and is used not only for independent work, but for the *instruction of students in the theory and the use of astronomical instruments, and in practical observatory work.* It affords to students unusual facilities for learning how to use astronomical instruments.

PHYSICS.

This subject is taught by lectures, and copious additions are made to the matter of the text-book. Each point is demonstrated as far as possible; and the relations of the subject to ordinary natural phenomena, the processes of the industrial arts, etc., are pointed out. Students are encouraged to use the apparatus under the direction of the Professor in charge, and are trained to distinguish the essential from the casual conditions of experiments, as well as to infer from scientific data *no more* than is certain and warranted. The course begins with Mechanics and proceeds to Heat, Electricity, Sound and Light.

The apparatus is well fitted to illustrate all principles, and such additions are made to it as the industrial applications of science demand.

Students in the Scientific Course, in the study of Physics use the Paris Edition (French) of Ganot's larger treatise.

NATURAL HISTORY.

The course in this department begins with the Freshman year, in which Physiology, Zoology, and Botany are taught. The several text-books are in all cases supplemented by illustrated lectures, and in the study of Botany by field excursions for practical work in the analyzing and classification of botanical specimens. Class-room microscopes, and the larger solar microscope are continually used by the students in all these branches of study. In the Junior and Senior years, these subjects are still further elaborated and studied in the sciences of Meteorology, Physical Geography, and Geology. The course of instruction is planned so as to bring these objects of every-day observation to the continued attention of the student, to teach him the principles of classification and systematic study, and to show their important relations to the successful conduct of the practical affairs of life. The extensive collections of minerals, fossils, geological and botanical specimens, shells, birds, etc., are arranged for study in the Museum of Geological Hall.

CHEMISTRY.

INORGANIC CHEMISTRY is taught by text-book and lectures, The subject is introduced by experimental lectures on the volume-composition of substances. Then follows a careful black-board drill on the writing of empirical and constitutional formulas of acids, bases and salts. The elements are next taken up in lectures, followed by recitations. In all cases the aim is to illustrate *every point* experimentally, thus giving the student ample experience in rigid experimental demonstration. The students are required to take full notes on the lectures, and sketches of the apparatus used in the experiments. These notes are afterward copied and handed to the Professor for examination, criticism, and correction, training the student in accurate observation, and in facility and brevity of expression. During the year, Stoichiometry, the Mathematics of Chemistry, is taught by black-board exercises.

ORGANIC CHEMISTRY is taught by lectures, recitations, and laboratory work. Beginning with the determination of the molecular weight of organic compounds, the student is led to examine the principles of substitution, valence and structure of organic compounds. Starting out from Methane, the various members of the Methane (mono-carbon) series are derived. When this series has been completed, the Ethane series is taken up and gone through with in the same manner. Then follow the Butane and Propane series, etc. At the end of each series a recapitulation of the typical reactions, and relations of each group is given.

The manner of treating the subject is substantially the same as that introduced by Prof. Hofmann, of Berlin. As the various substances are considered, their relations to vegetable and animal life and to agriculture are pointed out. Attention is also given to their practical applications, as in food, medicines, dyeing, and in manufactures generally. The lectures are accompanied by full experimental illustrations.

APPLIED CHEMISTRY.—The applications of Chemistry to the arts and manufactures are taught by lectures and text-book. Whenever it is practicable, the actual products are exhibited to the students, and the manufacturing processes reproduced in miniature. Attention is drawn to the scientific relations and connections between the various manufacturers. The great losses by imperfect methods of manufacture and by waste products are pointed out, and the student is taught to see the true economy of production. Illustrative of the lectures, visits are made to various manufacturing establishments, of which there are a number in and about New Brunswick, and an opportunity is given to see manufacturing operations in actual working.

ELECTIVE CHEMISTRY.—In the Junior and Senior years, students may elect a course in Analytical Chemistry with Laboratory Practice and Lectures. The experimental studies in this department have proved both attractive and profitable to those intending to devote themselves to Law or Medicine, or to business pursuits, as well as to men who intend to teach or to pursue lines of work immediately connected with chemistry and its applications.

The pupil begins by making the experiments in Eliot and Storer's Manual, thus acquiring by actual experience a familiarity with chemical substances and chemical phenomena.

The study of *Qualitative Analysis* is next taken up. The student makes the tests, studies the reactions, and proceeds rapidly from analysis of simple substances to the more complex. The method here followed of keeping notes of every step affords the student valuable practice in the three divisions of experimental science—Experiment, Observation, and Inference. The theory of analysis is explained in the lectures and recitations on the subject. In connection with this subject, *Blowpipe Analysis* is also taught. *Quantitative Analysis* now follows. The student having learned the means of detecting the constituents of a substance, proceeds to the determination of their amount. Pure salts of known composition are analyzed at first, so that the results may be compared with the theoretical percentages. A sufficient degree of accuracy having been obtained, substances of

unknown composition, as minerals, metals, ores, waters, urines, poisons, fertilizers, coals, etc., are analyzed. Having thus become thoroughly acquainted with the theory and practice of analytical chemistry, the student undertakes original experimental investigations in the various branches of pure and applied chemistry. Results obtained in investigations have been from time to time published in the scientific journals. During their entire course students are required to prepare samples of pure chemicals, and by this means such practice is given in manipulation as cannot be acquired in any other way.

RHETORIC.

ELOCUTION.—During the Freshman year, lectures are delivered on the general principles of Elocution, and a practical application of these principles is made by appropriate exercises in Declamation, in which the members of the class are carefully drilled. In addition to this there are exercises in Oratory by all the students, both in the class-room and in the College Chapel. The Freshman and Sophomore classes speak selected pieces; the Juniors and Seniors are required to deliver original orations.

In the department of Rhetoric, begun during the Freshman year, an effort is made to teach the principles of Composition, not as laid down in mechanical rules, but as springing from psychological laws and relations. Ideas presented in accordance with various mental requirements and influences are shown to contain the true philosophy of rational and effective discourse. Illustrative references to the Masterpieces of Oratory, and to other forms of the best English Classical Literature are freely given. Essays are required throughout the entire course.

The *Bussing Prizes* for excellence in *ex tempore* speaking, recently founded, are designed to cultivate the habit of presenting clearly, forcibly and accurately, and in a manner to convince an audience, the facts and ideas a student has upon themes with which he may fairly be supposed to be somewhat conversant. It is confidently expected that the repeated competitions for these prizes during the four years of the College course, will be productive of excellent effects.

METAPHYSICS AND LOGIC.

MENTAL PHILOSOPHY.—Porter's Elements of Intellectual Philosophy is used as a text-book during the first term and a part of the second term of the Junior year. The characteristic doctrines of the distinctive schools in Ancient and Modern Philosophy are presented in a course of lectures upon the representative thinkers in these schools. Much attention is paid to the most important philosophical and metaphysical questions now at issue among speculators. The results of recent critical discussions, together with comments, are interspersed with the daily recitations.

LOGIC.—Jevons-Hill's text-book is used. Special care is taken to enforce a practical application of logical formulas in the resolution of arguments, and the detection of sophistries. To this end illustrative examples are drawn from different authors and much oral instruction is given.

HISTORY, POLITICAL ECONOMY AND CONSTITUTIONAL LAW.

HISTORY.—The study of History is begun in the Sophomore year with the use of a text-book giving the outlines of modern history, beginning with the fall of the Roman Empire and tracing the formation and growth of modern States. In this part of the course, a knowledge of historical geography is essential, and to this end a constant use of the historical atlas is required of the student. From time to time and increasingly, as the class becomes familiar with the facts of history, and especially with the general relations of events, topics are assigned for special study, the results of such study by different members of the class and the various historical narratives which have been consulted are compared, the purposes and characteristics of historians pointed out, and instruction is given on the sources of history. The third term of the Sophomore year is spent in the study of the history of the English Constitution. Instruction in Ancient History is given to the students of the Classical Department by the Professors of Latin and Greek; to the

students of the Scientific Department in the Sophomore year by the Professor of History.

In the Junior year the purpose is to give a view of the Philosophy of History. Guizot's History of Civilization in Europe is used as a text-book. In lectures before the class, attention is directed to the action and reciprocal influences of political forces. The subjects assigned for essays are intended to stimulate a desire to understand the abstract and universal ideas which underlie the causes of events and which give to history its continuity and unity.

For students of the Senior year and for graduates, the Professor of History has formed a class in which the methods of study will be those of the so-called historical "Seminary." The following may serve as examples of the nature of the subjects proposed for the investigation in this class:

Methods of historical inquiry; fields open to the American student for original historical research; the nature of local government in England and in America; comparative study of local institutions in the United States; the English Government in its theory and methods.

POLITICAL ECONOMY.—Instruction is given in Political Economy to the Junior Class of the Scientific Department and to the Senior Class of the Classical Department by means of text-books, lectures and conversational discussions. The student is required to become familiar with the leading principles of this subject as presented by the author whose work is used as a text-book, and is then encouraged to study economical problems of the present time from the historical and, so far as may be, absolutely impartial standpoint.

CONSTITUTIONAL LAW.—The Senior Class will pursue the study of Constitutional Law in the second term. With the study of the present status of Constitutional Law, a constant reference to the reports of decisions in the more important cases will serve to develop a familiarity with the processes of constitutional growth. Subjects involving constitutional questions will be assigned for the writing of essays.

During the same term the study of the History of the Constitution of the United States is pursued by the Junior Class of the Scientific Department.

INTERNATIONAL LAW.—The work of a French or German author will be made the basis of an exposition of the principles of International Law, while at the same time the acknowledged superiority of American and English authorities will be kept in view. The subject is taken up in the second term of the Senior year.

ARCHITECTURE.

ARCHITECTURE is taught during the third term of the Senior year, and is brilliantly illustrated by stereopticon pictures, showing the successive orders and styles which have prevailed among different peoples and at different times.

PHYSICAL DEVELOPMENT—GYMNASIUM.

The Athletic Association, composed of students of Rutgers College, possesses large and commodious grounds.

The excellent *Gymnasium* in Suydam Hall, three minutes' walk from the college buildings, by the courtesy of the Theological Seminary of the Reformed Church is open to the daily use of the students of Rutgers.

SCIENTIFIC DEPARTMENT.

RUTGERS SCIENTIFIC SCHOOL:

BY ACT OF THE LEGISLATURE CONSTITUTED THE STATE COLLEGE FOR THE PROMOTION OF AGRICULTURE AND THE MECHANIC ARTS.

BOARD OF VISITORS.

(APPOINTED BY THE GOVERNOR.)

	Residences.	*Terms Expire.*
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OFFICERS:

HON. WILLIAM PARRY, *Chairman.*

GEORGE H. COOK, *Secretary.*

1. Conditions of Admission.

Every applicant for admission must be at least sixteen years of age, and must submit to the President proper testimonials of a good moral character. If an applicant for a State Scholarship, he must also present to the President a certificate of appointment from the County Superintendent.

Examinations for admission will be held on the same days as for the Classical Department, viz.: on the Monday and Tuesday preceding Commencement, beginning at 10 o'clock A. M. on Monday, in the President's office. Applicants for admission may also be examined on the Wednesday next after the 15th of September, at the same hour and place; but all students who can conveniently do so, are advised to be present in June.

Students may enter an advanced class either at the beginning of the College year or at other times, on condition that they sustain a satisfactory examination both on the preliminary studies and on those already passed over by the class which they propose to enter.

Provision is made for such students as wish to devote themselves to special subjects, if they are prepared to study profitably with the regular classes in those subjects.

The following are the subjects in which those desiring to enter the Freshman Class of the Scientific Department are examined. As they are all such as can be acquired in our best common schools, *it is insisted that the preparation in them shall be thorough and complete.* The general regulations as to conditions and their removal will be the same as those which apply to the classical course; and may be found on page 13.

1. Arithmetic.—Fundamental Operations; Common and Decimal Fractions; Denominate Numbers, including the Metric System; Percentage, including Interest and Discount; Proportion; Extraction of the Square and the Cube Roots.

2. Algebra to Series; as much as is contained in Loomis' Treatise on Algebra, Wentworth's Complete Algebra, or Wells' University Algebra.

3. PLANE GEOMETRY.—The *whole* of Plane Geometry will be required.

4. ENGLISH GRAMMAR—including Spelling.

5. DESCRIPTIVE GEOGRAPHY.

6. PHYSICAL GEOGRAPHY.

7. HISTORY OF THE UNITED STATES.*

8. Such a knowledge of Elementary PHYSICS and CHEMISTRY as may be obtained from Peck's Ganot's Physics, or Wells' Natural Philosophy, and Valentine's Twenty Lessons in Chemistry, or Cooley's or Steele's Chemistry, is required for admission.

9. AN ESSAY will also be required, to be written at the examination, on some subject drawn from books announced in advance. The books to be read with this in view will be those named for the English essay in the Classical Department, on page 16.

In preparing the student for this course, it is recommended that he be drilled thoroughly in Arithmetic, as a clear understanding of its simple elementary and practical principles is essential to a good Mathematician. His preparation in Algebra to Series should be *very thorough.* In addition to understanding the PRINCIPLES of the science, he must fix them in his memory, and learn their bearing and utility, and for this reason he must pay great attention to the solution of practical examples. What is needed is ability to solve ordinary examples with facility and explain them thoroughly.

Attention is specially called to the Metric System of Weights and Measures, a practical knowledge of which is indispensable, since it is *used* in the class-room.

2. COURSE OF STUDY.

Three distinct courses of study are included in the schedule which follows:

I. A COURSE IN CIVIL ENGINEERING AND MECHANICS.

II. A COURSE IN CHEMISTRY AND AGRICULTURE.

III. A SPECIAL COURSE IN AGRICULTURE.

*For particulars see pages 16 and 17.

During the first year the studies of the two full courses are the same, and are designed to furnish a suitable introduction to the pursuit of the higher branches in either.

ENGINEERING COURSE.—During the last three years, the students in this course are instructed in Railroad Curves, Descriptive Geometry, Analytic Geometry, Differential and Integral Calculus, Analytic Mechanics, Civil Engineering, Bridge-Building and Geodesy; and have daily practice in Draughting, with Exercises and Problems in Geometrical Constructions, in Descriptive Geometry, Topographical, Mechanical and Architectural Drawing, and in Graphical Statics.

Students in this course, and in the Chemical and Agricultural Course, in addition to the special and technical studies of their course, pursue such studies in English, Rhetoric, Elocution, French or German, Metaphysics and Moral Philosophy and the Natural Sciences as are calculated to make them broadly educated and intelligent citizens, and not mere narrow specialists.

The course of study for the first year in this department is arranged so as to be complete in itself. It is especially designed to meet the wants of those who cannot take the entire four years' course, but who desire to fit themselves as Land Surveyors. Students leaving at this period of the course, receive from the Faculty a certificate of their attainments.

CHEMICAL AND AGRICULTURAL COURSE.—During the last three years, the students in this course are instructed in General, Experimental, Theoretical, Organic and Applied Chemistry, Stoichiometry, Theory and Practice of Agriculture, Determinative Mineralogy, Blowpipe Analysis, and Analytical Chemistry, including the Analysis of Ores, Minerals, Coals, Waters, Technological Products, Soils, Fertilizers, Agricultural Products and Foods, Poisons, Urine and Animal Products. Instruction is also given in Spectrum Analysis, and Microscopical Examination. The course of study depends, to some extent, upon the student's future pursuit in life.

The special course in Agriculture occupies two years. In the remaining studies, the courses in Engineering, Chemistry and Agriculture are the same.

Partial Students are received, and allowed to take part in the above courses, provided their previous education is sufficient; and particular provision is made for them, especially in the Laboratory, in the application of science to Agriculture, and in Mathematics, Surveying and Draughting.

SPECIAL PROVISION IS ALSO MADE FOR STUDENTS WHO DESIRE, AFTER COMPLETING THE REGULAR COURSE OF STUDY, TO TAKE POST-GRADUATE STUDIES.

In connection with the instruction in Agriculture in this department, the Trustees maintain an extensive model farm, designed to illustrate the principles of agriculture.

MILITARY TACTICS.—In accordance with the requirements of the law, provision is made in this department for the study of Military Tactics.

ANNUAL REPORT OF THE SCIENTIFIC DEPARTMENT.

More extended information about the studies and courses in the Scientific School will be found in the Annual Report of the New Jersey State Scientific School to the Legislature of New Jersey, which will be sent to any address on application.

3. ORGANIZATION.

This department of the College has been designated by the Legislature of New Jersey, in accordance with the law of Congress,

THE STATE COLLEGE FOR THE PROMOTION OF AGRICULTURE AND THE MECHANIC ARTS.

Under the law, a certain number of students from the State of New Jersey are received into this department of the College, and educated free of expense for tuition. This law also provides for the appointment by the Governor of a Board of Visitors, two from each Congressional District, who possess general powers of supervision and control. The State pupils are admitted to free scholarships on the recommendation of the Superintendent of Schools in each county and on passing the required examinations.

These free scholarships are distributed among the counties in proportion to their population as follows:

STATE SCHOLARSHIPS.

Atlantic,	1	Middlesex,	2
Bergen,	1	Monmouth,	2
Burlington,	3	Morris,	2
Camden,	2	Ocean,	1
Cape May,	1	Passaic,	2
Cumberland,	1	Salem,	1
Essex,	6	Somerset,	1
Gloucester,	1	Sussex,	1
Hudson,	6	Union,	2
Hunterdon,	1	Warren,	1
Mercer,	2		40

Notice of examinations to be held in the several districts to fill vacancies which may exist in these Scholarships will be from time to time given by the State Superintendent of Education to the several County Superintendents.

Letters to the President or the Secretary of the Faculty, inquiring about vacancies, will receive careful attention.

COURSES OF STUDY.

Freshman Year.

Exercises during the year in Composition and Declamation. Bible-Class, Sabbath morning.

FIRST TERM.

1. French.—Keetel's Collegiate Course, Part I.
2. Mathematics.—Algebra completed; Geometry, Wentworth.
3. Physiology.—Dalton's; Lectures.
4. Rhetoric.—Kellogg; Lectures.
5. Draughting.—Practical Plane Geometry.
6. English Literature.—Alden's Studies in Bryant.

SECOND TERM.

1. French.—Keetel's Analytical French Reader; Collegiate Course, Part II.
2. Mathematics.—Geometry completed; Trigonometry, Plane and Spherical, Wentworth.
3. Comparative Zoölogy.—Orton.

4. ELOCUTION.—Lectures.

5. ENGLISH LITERATURE.—History of the English Language; Study of Words, Trench; Hale's Longer English Poems.

6. DRAUGHTING.—Coloring, Topographical Signs, etc.

THIRD TERM.

1. FRENCH.—Classic Authors.

2. MATHEMATICS.—Surveying, Murray.

3. BOTANY.—Gray's; Lectures.

4. ENGLISH LITERATURE.—English Authors.

5. DRAUGHTING.—Mapping, with sections, etc.; Field work.

SOPHOMORE YEAR.

COURSE IN CIVIL ENGINEERING AND MECHANICS.

Exercises during the year in Composition and Declamation.
Bible-Class, Sabbath morning.

FIRST TERM.

1. RAILROAD CURVES.—Henck's Field Book.

2. DESCRIPTIVE GEOMETRY.—Church.

3. CHEMISTRY.—Barker; Lectures, with Experiments; Stoichiometry.

4. FRENCH.—Ganot's Treatise on Physics, latest Paris edition.

5. HISTORY.—Freeman's Outlines.

6. DRAUGHTING.—Practical Geometry, Solid; Free-hand Drawing, Shades and Shadows.

7. ENGLISH LITERATURE.—Essays in Literary Criticism.

SECOND TERM.

1. DESCRIPTIVE GEOMETRY.—Church; Construction of Problems.

2. ANALYTIC GEOMETRY.—Bowser.

3. CHEMISTRY.—Barker; Lectures, with Experiments.

4. FRENCH; GERMAN.—Studied with a view to use in Natural Science.

5. HISTORY.—Freeman's Outlines.

6. DRAUGHTING.—Intersection of Surfaces, etc.

7. ENGLISH LITERATURE.—Essays in Literary Criticism.

THIRD TERM.

1. ANALYTIC GEOMETRY.—Bowser, completed.

2. SHADES, SHADOWS AND PERSPECTIVE.—Church; Construction of Problems.

3. CHEMISTRY.—Barker; Lectures, with Experiments.

4. FRENCH OR GERMAN.

5. HISTORY.—Creasy's Constitutional History of England.

6. DRAUGHTING.—Linear Perspective, etc.

7. ENGLISH LITERATURE.—Essays in Literary Criticism.

Sophomore Year.

Course in Chemistry and Agriculture.

Exercises during the year in Composition and Declamation.
Bible-Class, Sabbath morning.

FIRST TERM.

1. Experimental Chemistry.—Eliot and Storer.
2. Qualitative Analysis.—Fresenius; Lectures; Laboratory Practice.
3. Chemistry.—Barker; Lectures, with Experiments.
4. French.—Ganot's Treatise on Physics, latest Paris edition.
5. History.—Freeman's Outlines.
6. Draughting.—Practical Geometry, Solid; Free-hand Drawing, Shades and Shadows.
7. English Literature.—Essays in Literary Criticism.

SECOND TERM.

1. Qualitative Analysis.—Fresenius; Lectures; Laboratory Practice.
2. Chemistry.—Barker; Lectures, with Experiments.
3. French; German.—Studied with a view to use in Natural Science.
4. History.—Freeman's Outlines.
5. Draughting.—Intersection of Surfaces, etc.
6. English Literature.—Essays in Literary Criticism.

THIRD TERM.

1. Qualitative Analysis.—Fresenius; Lectures; Laboratory Practice.
2. Chemistry.—Barker; Lectures, with Experiments.
3. Stoichiometry.
4. French or German.
5. History.—Creasy's Constitutional History of England.
6. Draughting.—Linear Perspective, etc.
7. English Literature.—Essays in Literary Criticism.
8. Scientific German.—Pinner's anorganische Chemie.

Junior Year.

Course in Civil Engineering and Mechanics.

Exercises during the year in Composition and Original Declamation.
Bible-Class Sabbath morning.

FIRST TERM.

1. Mental Philosophy.—Porter's Elements of Intellectual Philosophy; Lectures; Essays.
2. Differential Calculus.—Bowser.
3. Physics.—Ganot; French Text-Book.

4. POLITICAL ECONOMY.—Walker and Perry.
5. DRAUGHTING.—Lettering, etc.
6. GERMAN.—Ahn's German Method, Fischer, Part I.

SECOND TERM.

1. GERMAN.—Wackernagel's Deutsches Lesebuch; German Method, Part II.
2. DIFFERENTIAL CALCULUS.—Completed; INTEGRAL CALCULUS.—Bowser.
3. PHYSICS.—Ganot; French Text-book.
4. LOGIC.—Jevons-Hill's Text-book, and Lectures.
5. CONSTITUTIONAL HISTORY OF THE UNITED STATES.—Text-book, Andrews; Lectures.
6. DRAUGHTING.—Shading, etc.

THIRD TERM.

1. ENGLISH LITERATURE.—English Authors..
2. INTREGAL CALCULUS.—Completed.
3. ASTRONOMY.—Newcomb and Holden.
4. HISTORY OF CIVILIZATION.—Guizot, French Text.
5. DRAUGHTING.—Construction.
6. GERMAN.—Classic Authors.

JUNIOR YEAR.

COURSE IN CHEMISTRY AND AGRICULTURE.

Exercises during the year in Original Composition and Declamation.
Bible-Class, Sabbath morning.

FIRST TERM.

1. MENTAL PHILOSOPHY.—Porter's Elements of Intellectual Philosophy; Lectures.
2. QUANTITATIVE ANALYSIS.—Fresenius, Cairns; Lectures; Laboratory Practice; Organic Chemistry, Pinner-Austen; Lectures, with Experiments.
3. CHEMISTRY.—Cooke's Chemical Philosophy.
4. AGRICULTURE.—Lectures at the Farm.
5. PHYSICS.—Ganot; Lectures, with Experiments.
6. POLITICAL ECONOMY.—Walker and Perry.
7. GERMAN.—Ahn's German Method, Fischer, Part I.
8. DRAUGHTING.—Lettering, etc.

SECOND TERM.

1. MENTAL PHILOSOPHY.—Continued, and LOGIC.
2. QUANTITATIVE ANALYSIS.—Fresenius, Cairns; Lectures; Laboratory Practice.
3. ORGANIC CHEMISTRY.—Pinner-Austen and Lectures, first four weeks.
4. CHEMISTRY.—Cooke's Chemical Philosophy.

5. AGRICULTURE.—Lectures.
6. PHYSICS.—Ganot; Lectures, with Experiments.
7. CONSTITUTIONAL HISTORY OF THE UNITED STATES.—Andrews; Lectures.
8. GERMAN.—Wackernagel's Deutsches Lesebuch; German Method, Part II.
9. DRAUGHTING.—Shading, etc.

THIRD TERM.

1. ENGLISH LITERATURE.—English Authors.
2. QUANTITATIVE ANALYSIS.—Fresenius, Cairns; Lectures; Laboratory Practice.
3. CHEMISTRY.—Cooke's Chemical Philosophy.
4. PHYSICS.—Ganot.
5. AGRICULTURE.—Vegetable Physiology.
6. HISTORY OF CIVILIZATION.—Guizot, French Text.
7. GERMAN.—Classic Authors.
8. DRAUGHTING.—Construction.
9. DETERMINATIVE MINERALOGY.
10. ASTRONOMY.—Newcomb and Holden.

SENIOR YEAR.

COURSE IN CIVIL ENGINEERING AND MECHANICS.

Exercises during the year in Composition and Original Declamation.
Bible-Class, Sabbath morning.

FIRST TERM.

1. MORAL PHILOSOPHY.—Calderwood; Lectures.
2. MECHANICS.—Bowser.
3. ENGINEERING.—Mahan.
4. PHYSICS.—Ganot; French Text-book.
5. DRAUGHTING.—Machinery and Architecture.

SECOND TERM.

1. MORAL PHILOSOPHY.—Calderwood; Lieber's Political Ethics; Lectures.
2. ENGINEERING.—Mahan.
3. MECHANICS.—Bowser; Bridge-building, Wood.
4. PHYSICS.—Ganot; French Text-book.
5. GEOLOGY.—Dana; Lectures.
6. DRAUGHTING.—Engineering.

THIRD TERM.

1. BRIDGE-BUILDING.—Wood; Geodesy; Lectures.
2. GEOLOGY.—Dana; Lectures.
3. MORAL PHILOSOPHY.—Butler's Analogy; Lectures on Practical Ethics and Duties of Citizenship.
4. DRAUGHTING.—Thesis.

Senior Year.

Course in Chemistry and Agriculture.

Exercises during the year in Composition and Original Declamation.
Bible-Class, Sabbath morning.

FIRST TERM.

1. Moral Philosophy.—Calderwood's Hand-book; Lectures.
2. Applied Chemistry.—Wagner's Technology.
3. Principles of Agriculture.—Lectures; Care and Feeding of Domestic Animals; Armsby's Cattle Feeding.
4. Quantitative Analysis.—Fresenius, Cairns; Lectures; Laboratory Practice.
5. Organic Chemistry.—Remsen and Pinner-Austen.
6. Physics.—Ganot; French Text-book.
7. Draughting.
8. Scientific German.—Hodge's Course, Sheldon's Grammar.

SECOND TERM.

1. Moral Philosophy.—Calderwood; Lieber's Political Ethics; Lectures.
2. Applied Chemistry.—Wagner's Technology.
3. Agriculture.—Its Methods and Products; Johnson's "How Crops Grow."
4. Quantitative Analysis.—Fresenius, Cairns; Lectures; Laboratory Practice.
5. Organic Chemistry.—Remsen and Pinner-Austen.
6. Physics.—Ganot; French Text-book.
7. Draughting.
8. Geology.—Dana; Lectures.
9. Scientific German.—Pinner's anorganische Chemie.

THIRD TERM.

1. Applied Chemistry.—Wagner's Technology.
2. Agriculture.—Lectures; Johnson's "How Crops Feed."
3. Geology.—Dana; Lectures.
4. Moral Philosophy.—Butler's Analogy; Lectures on Practical Ethics and Duties of Citizenship.
5. Quantitative Analysis.—Fresenius, Cairns; Lectures; Laboratory Practice.
6. Organic Chemistry.—Remsen and Pinner-Austen.
7. Draughting.
8. Thesis.
9. Scientific German.—Pinner's anorganische Chemie.

SPECIAL COURSE IN AGRICULTURE.

FIRST YEAR.

FIRST TERM.—1. Algebra. 2. Geometrical Problems. 3. Inorganic Chemistry. 4. Physiology and Zoology. 5. Analytical Chemistry.

SECOND TERM.—1. Geometry. 2. Coloring and Topographical Drawing. 3. Analytical Chemistry. 4. Book-Keeping.

THIRD TERM.—1. Trigonometry. 2. Mapping. 3. Analytical Chemistry. 4. Botany. 5. Farm Accounts.

SECOND YEAR.

FIRST TERM.—1. Surveying. 2. Projections. 3. Physics. 4. Care and Feeding of Domestic Animals. 5. Systematic Agriculture. 6. Analytical Chemistry.

SECOND TERM.—1. Navigation and Nautical Astronomy. 2. Architectural Drawing. 3. Physics. 4. Geology. 5. How Crops Grow.

THIRD TERM.—1. Leveling and Road Making. 2. Machine Drawing. 3. Meteorology. 4. Botany. 5. How Crops Feed.

Composition and Declamation throughout the whole course.

The hours of lectures or recitations are either three or four each day, besides work in the Chemical Laboratory, and in the Draughting Room.

Students who pass their regular examinations in the above subjects, will, at the close of their course, receive certificates of their attainments. And at the end of two or more years further, if they shall have pursued practical agriculture on a farm, and shall then pass satisfactory examinations in prescribed subjects on Agricultural principles and practice before a Board of Examiners of the Scientific School, they shall receive Diplomas in Agriculture.

EXAMINATIONS.

The classes in both departments are examined at the close of each term. These examinations are partly oral and partly written, and have an important bearing upon the standing of the student in his class.

Unexpected examinations at irregular intervals are held at the discretion of each instructor. The object of these examinations is to cultivate the habit of considering the relations of each day's work to what has been done before, and to stimulate effort on the part of each student to gain a comprehensive knowledge of the subjects studied.

At the end of the first and third terms, the examinations of the classes of the Scientific section are held in the presence of the Board of Visitors, who then make their semi-annual visits to the Institution.

At the end of the third term each member of the Graduating Class of the Scientific Section is required to present a thesis on some scientific subject, a copy of which is to be written out upon paper suitable for binding, and deposited in the College Library.

The final examination of the Graduating Classes is held four weeks before Commencement, from which time they are subject to such duties as are required for their preparation for Commencement.

GRADUATION.

To all members of the Graduating Class of the Classical Department, in full standing, the Trustees grant diplomas conferring the Academic degree of Bachelor of Arts.

To all members of the Graduating Class of the Scientific Department, in full standing, the Trustees grant diplomas conferring the Academic degree of Bachelor of Science.

To all members of the Graduating Class, in either Department, who have satisfactorily pursued special courses of study, a certificate is granted stating the studies pursued and the attainments made.

To those students who have pursued satisfactorily the studies of the first two years of the Scientific Course, and who desire to leave at that time, a special certificate is granted by the Faculty.

The following regulations have been adopted by the Board of Trustees in regard to the graduating exercises at Commencement:

1. The privilege of speaking at Commencement shall be open without distinction to the Classical and Scientific Sections of the Graduating Class.

2. Until 1887, the graduating honors shall be as follows:

FIRST HONOR—Latin Salutatory.
SECOND HONOR—English Salutatory.
THIRD HONOR—Philosophical Oration.
FOURTH HONOR—Scientific Oration.

If the first honor be awarded to a member of the Scientific Section of the Graduating Class, he shall deliver a German Salutatory.

3. Until 1887, the *Valedictory* shall be regarded as a *rhetorical honor only*, and shall be awarded to the best writer and speaker in his class (to be determined by his grade in composition and elocution during the Junior and Senior years), provided that he

has been a member of his class for two years, and has a general grade in scholarship among the best two-thirds.

On and after Commencement Day, 1887, the *Valedictory Oration* shall be the First Honor, and shall be pronounced by that member of the Graduating Class who shall have received the highest grade from the combined marks in all the subjects of the course; and on and after the same day, the Honor now known as the Valedictory shall be styled the Rhetorical Honor.

4. Eleven other speakers shall be chosen, of whom six shall be chosen by grade in scholarship, provided, that in their grade in composition and elocution during their Junior and Senior years they are among the best two-thirds; and five shall be chosen by grade in composition and elocution during their Junior and Senior years, provided, that in their general grade in scholarship they are among the best two-thirds.

DEGREES AND POST-GRADUATE STUDIES.

The degrees of A. M. and M. S. are no longer given "in course," but only for work done.

The Faculty will recommend for the degree of Master of Arts or Master of Science candidates otherwise properly qualified, who, after taking the appropriate Bachelor's degree,

1. Shall pursue for at least one year at Rutgers College a course of liberal and non-professional study, approved by the Faculty, and shall, besides the term examinations, pass a thorough examination on that course and present a thesis on some topic connected with it; or,

2. Who, not less than three years after taking the Bachelor's degree at Rutgers College, shall make application for the Master's degree, presenting at the same time a certificate of graduation from a Theological Seminary, a Law School, or a Medical School, or of admission to the practice of Law or Medicine; or,

3. Satisfactory evidence of successful labor in that field of education or literature which may have been permanently chosen; or,

4. In case of Bachelors of Science, satisfactory evidence of

successful professional work actually done and advanced professional studies prosecuted.

The degrees of Ph.D. and D.Sc., may be conferred upon resident graduates of the College who shall pursue for two years prescribed courses of study under the direction of the Faculty.

The conditions will be made known on application.

The degree of Civil Engineer is a professional one, and is, on application, conferred upon graduates of the College who have taken the degree of Bachelor of Science, and subsequently have passed three years in the practice and study of engineering, with results satisfactory to the Faculty.

The applicant is required to furnish a statement of the work upon which he has been engaged, and to present a Thesis or discussion of some engineering work which he has done. The application and Thesis must be presented to the Secretary of the Faculty at least one month before commencement.

Regulations.

Morning prayers are attended in the College Chapel each morning, except Saturday and Sunday, at 8:40 o'clock.

The recitation hours extend from 9 o'clock A. M. to 1 o'clock P. M., during five days of the week.

A Bible-Class is held Sabbath morning in the College Chapel at 9:30 o'clock. All students are required to attend it.

A sermon is preached every Sabbath morning in the College Chapel at 10:30 o'clock. Students are required to be present. They are expected, also, to attend public worship in the afternoon or evening, at such place as their parents or guardians may direct.

No student is allowed to leave the city during term time without permission from his Division Officer.

Recitations are marked on a scale of 100, and the average standing of each student is made up at the end of each term, and sent to his parent or guardian. A mark at examination counts as much as one-third of the term's work up to the time of examination.

If the grade of a student in any term falls below 60 per centum of the maximum in one of his studies, he is conditioned in that study, and must be re-examined therein.

If the average of any student in any study at any time falls below 60 per centum of the maximum grade, his case must be acted on as the Faculty shall deem necessary.

If any student's average grade in any term falls below 60 per centum of the maximum, he loses his standing in his class, and is required to fall back a year in the course. If his work is not satisfactory after a month's trial here, he is dismissed from College.

If any student is found to be notably deficient in his daily recitations, or at the examination in any of his studies, his case is reported to the Faculty, and such action by way of discipline is taken as may be deemed necessary.

No student can be promoted to an advanced class until all his deficiencies are made up; and if he fails to make up all his deficiencies before the opening of the College year, he is required to go back a year in his course. Examinations for making up such deficiencies are held *on the first day of the Autumn Session in September, at 9 A. M.*

It is especially requested that no young man come or be sent to Rutgers College who does not have the definite wish and the manly purpose to make the most of his time and his opportunities for improvement.

College Expenses.

FEES.

Tuition, per annum,	$75 00
Incidentals—Janitor, Fuel, &c., per annum,	8 00
Reading Room, per annum,	2 00
Admission Fee,	5 00
Graduation Fee,	7 50
Analytical Chemistry, extra, per term,	15 00

Of the above expenses, the admission fees are payable, on entrance, to the College Treasurer; the incidental expenses are payable at the beginning of the first term, in September; of the tuition fees, one-third, viz., $25, is payable within ten days after the beginning of each term. All checks should be made payable to the Treasurer of Rutgers College.

Students in Analytical Chemistry are charged $15 additional per term, for chemicals and use of the Laboratory, which amount must be paid within ten days after the beginning of the term. They are also expected to provide themselves, at their own expense, with the necessary sets of apparatus, which may be obtained from the regular apparatus dealers, or from the Laboratory Supplies department. These sets are retained through the year, but at the end of it, if the owners do not wish to keep them, they will be purchased at a fair price. If proper care has been exercised, a small discount only (about 10 per cent.) from the original cost will be made. All breakage will be charged in full.

BOARD.

Board, with furnished rooms, can be obtained in New Brunswick at the present time for $4 to $7 per week; board without rooms for $3 to $5 per week. Students having the ministry in view may obtain rooms in Hertzog Hall, in the Theological Seminary, free of charge. These rooms are heated and lighted.

The Faculty are empowered to pass such regulations relative to the number of boarders in each house as they think proper; and students shall board only at such places as are approved by them.

By combining in clubs, students are able to reduce somewhat their expense for board.

Free scholarships and pecuniary assistance may be given to young men of approved character and ability, whose family circumstances are such as to make this assistance necessary. No deserving student who has shown perseverance and capacity is allowed to give up his course for lack of assistance.

Beneficiary Aid.

1. Van Benschoten Fund.

This fund, the gift of the Rev. Elias Van Benschoten, in 1814, amounting to $20,813, was given in trust jointly to the General Synod of the Reformed Church and the Trustees of Rutgers College, to aid in the education of indigent students for the ministry. The students who enjoy the benefits of this fund are appointed by the Trustees of the College on the nomination of the General Synod of the Reformed Church, and receive $150 annually.

2. Knox Fund.

This fund, consisting of $2,000, was given by Mrs. Rebecca Knox, of Philadelphia, in 1815, to the Trustees of Rutgers College, the income from it to be expended for the support of one student in the Theological Seminary.

3. W. P. Smock Fund.

William P. Smock, of Marlboro, N. J., left by his will, to the Trustees of Rutgers College, the sum of $500, to be invested

as a fund, the interest of which should be used to aid in the education of young men for the ministry. This legacy was received in 1859, and has been since that time duly employed for the purpose indicated.

4. Mandeville Fund.

In 1865 the Trustees of Rutgers College received from the executor of the will of William Mandeville, of New York City, the sum of $2,000; said sum to be invested, and the income thereof to be applied to the support of a theological student in the College.

5. Voorhees Fund.

Abraham Voorhees, of Franklin Park, N. J., bequeathed by his will, $26,000 to the Trustees of Rutgers College, the income of which is to be expended in aiding worthy young men who are candidates for the ministry, while pursuing their studies in Rutgers College. A grant of $200 per annum is made to the students thus receiving aid.

6. Free State Scholalships.

The law of the State of New Jersey granting to the Scientific Department of Rutgers College the Agricultural College Endowment, provides for the education of forty State students free of expense for tuition. These scholarships are distributed among the counties in proportion to their population, and the appointments to fill vacancies are made by the County Superintendent. The appointment gives the right to a course of instruction of four years in Rutgers Scientific School, on successfully passing the entrance examinations.

7. Board of Education.

The Board of Education of the Reformed Church grants aid to young men preparing for the ministry in the denomination. The conditions are that the persons receiving aid shall have been members of some Evangelical Church one year, and at the time members of some Reformed Church. The aid may be obtained either while in College or in the Theological Seminary.

At present the amount given is from $150 to $200 per annum. Information may be had by addressing the Secretary of the Board, 34 Vesey St., New York.

8. Rooms for Students.

Such rooms in Peter Hertzog Hall as may not be required for the use of the students of the Theological Seminary, are allowed to be occupied by the students of the College and Grammar School who have the ministry in view, and on the same conditions as the members of the Theological Seminary, *i. e.*, free of charge.

Prizes and Honors.

In every case where it is expected that a prize will be awarded for work done, it is distinctly announced that unless in the opinion of the examiners the work submitted is of such excellence as to merit a prize or prizes, no prize will be awarded.

All prizes and honors are open equally to members of the Classical and Scientific Departments, except in cases where prizes are specifically limited to one department by the donor. Each competitor for a prize must sign a written declaration that the essay or other work offered by him is his original and unaided work. They are as follows:

1. Suydam Prize for Composition.

This prize, the gift of James Suydam, Esq., is a gold medal of the value of thirty dollars, or that sum in money, and is to be given to the member of the Senior Class who shall write the best English Composition on the subject assigned to the class by the Professor of Rhetoric. Competitors must hand in their compositions on or before April 18th. The student to whom the prize is awarded must copy his composition upon paper furnished by the College, and present it for preservation in the Library before he can receive the prize.

Subject for 1885: "Carlyle—The Sources and Probable Duration of His Influence." The prize was awarded to WILLIAM E. FLORANCE, of New Brunswick.

Subject for 1886: "The Position and Influence of Dugald Stewart as a Philosopher."

2. SUYDAM PRIZE IN NATURAL SCIENCE.

This prize, the gift of James Suydam, Esq., is a gold medal of the value of thirty dollars, or that sum in money, and is to be awarded to the member of the Senior Class who shall have made the greatest attainments in Natural Science. The examination is upon all the subjects of Natural Science in the College course, and is conducted by the Professors in those subjects. The questions and answers are required to be written.

This prize was in 1885 awarded to LOUIS BISHOP, of Trenton.

3. BRODHEAD CLASSICAL PRIZE.

This prize is the gift of Rev. Dr. Jacob Brodhead and his son, J. Romeyn Brodhead, LL.D. It is the interest on $500, *i. e.*, thirty dollars, to be given to the best Senior Classical scholar on the following conditions:

First. "That those who offer themselves as candidates for it shall be subjected to a special examination, at a time to be fixed by the Faculty near to the close of the Senior year."

Second. "That the subject of the examination be a passage or play of some Classical author (not included in the College programme of studies), to be selected by the Classical Professors, and to be announced at least one month before the time fixed for the examination."

Third. "A subject for an essay shall be announced at the same time, and the essay shall be given in on the day of examination."

Fourth. "Both the examination and the essay shall be taken into account in the adjudication of the prize. A law copy of the essay of the Prize man shall be handed in by him before the medal is put into his hands, to be preserved among the archives of College."

Subject for examination for 1886: "Plato's Timaeus;" and for essay: "Did the Greek Natural Philosophers believe the Earth to be a Sphere?" This to be written in Greek. If there be three or more contestants, a second prize of twenty-five dollars will be given by the Professor of the Department.

4. Bradley Mathematical Prize.

This prize is given by Hon. Joseph P. Bradley, LL.D., and consists of a valuable Mathematical work, which is to be bestowed on the student of the Senior Class who shall present the best solution of a set of Mathematical problems to be proposed to the class by the Professor of Mathematics before the close of the second term. The prize was, in 1885, awarded to Asher Atkinson, of New Brunswick.

5. Myron W. Smith Prizes.

These prizes were founded by Lyndon A. Smith, M. D., of Newark, in the name of his son, Adjutant Myron W. Smith, who was a graduate of the College, and who gave his life in the late war to the cause of his country. They consist of the interest of $500, proportionately appropriated to two medals, one of gold and the other of silver, which are to be awarded respectively to the best and second best speakers of the Sophomore Class. Only those students who shall have pursued, in the College, the regular studies of the classical or a full scientific course from the beginning of the Freshman year, shall be allowed to contend for these prizes.

The competition for these medals shall take place before a committee of the Faculty, when the best and second best speakers shall be selected, to whom the medals shall be awarded, and six others shall receive honorable mention in their order of excellence. The medals shall be presented at Commencement.

In 1885, the first of these prizes was awarded to Asa Wynkoop, of Catskill, N. Y.; the second prize to Samuel H. Voorhees, of Princess Anne, Md.

6. Tunis Quick Prize in Spelling and English Grammar.

This prize, the gift of P. Vanderbilt Spader, Esq., of New Brunswick, is the income of $300, at 6 per centum, and is to be presented to that member of the Freshman Class, Classical or Scientific, who shall pass the best examination in Spelling and English Grammar.

The examination is to be conducted in writing by the Professor of English Literature, at as early a day as convenient in the second College term, and under such regulations as the Faculty may from time to time establish.

The prize may be withheld from any or all papers offered, either for want of merit or for failure of proper competition. In case the prize be not awarded in any year, it is to be offered one year later to the members of the same class, on the same conditions as at first.

All regulations as to time, manner and conditions of awarding the prize are subject to change by the Board of Trustees.

It was awarded, in 1884–5, to Maurice J. Thompson, New York City; a second prize was awarded to Melvin D. Brandow, of New Brunswick.

7. Peter Spader Prizes in Modern History.

These prizes, the gift of P. Vanderbilt Spader, Esq., are two in number, the income of $400 and $300, respectively, at 6 per centum, and are to be awarded to those members of the Sophomore Class, Classical or Scientific, who shall present the best essays on some subject in Modern History, selected by the Professor of History, with the approval of the Faculty.

The subject is to be announced at the close of the Freshman year, and the competing essays are to be handed in on or before the third Monday in the third term of the Sophomore year.

The committee annually appointed by the Faculty may decline to award these prizes, or either of them, for want of merit in the essays, or for failure of proper competition. In case the prizes be not awarded in any year, they are to be offered one year later to the members of the same class, on the same conditions as at first.

Successful essays are to be copied on paper selected by the Faculty, and deposited in the College Library, before the writer receives his prize.

All regulations as to time, manner and conditions of awarding the prizes are subject to change by the Board of Trustees.

Subject for 1885: "The Dutch in North America." The first prize was awarded to STEPHEN DUBOIS DEMAREST, of New Brunswick; the second to HENRY HOLMES PALMER, JR., of New Brunswick.

Subject for 1886: "A Review of the Works of Francis Parkman."

8. APPLETON MEMORIAL PRIZE IN MORAL PHILOSOPHY.

This prize was founded by a gift of $500, from the Rev. Samuel E. Appleton, D. D., in the name of his mother, Mrs. Elizabeth Appleton. It consists of thirty dollars, the interest of the above sum, and will be given "to the member of the Senior Class who shall pass the best examination in Moral Philosophy."

The prize was awarded, in the class of 1885, to WILLIAM H. BOOCOCK, of Coxsacksie, N. Y.

Subject for 1886: A written and an oral examination upon Calderwood's Handbook of Moral Philosophy.

9. WILLIAM WILSON PRIZE IN MENTAL PHILOSOPHY.

This prize consists of twenty-five dollars, given by the Rev. F. F. Wilson, and the Rev. P. Q. Wilson, in honor of their father, Captain William Wilson, of the New Jersey State Militia. It will be open to competition for students in both the Classical and Scientific Sections who are pursuing the study of Mental Philosophy, and will be bestowed on the one who shall pass the best examination on some work assigned by the Professor of Metaphysics.

Work for 1885: Berkeley's Principles of Knowledge, Dr. Krauth's Edition, pages 72–122, and 193–281.

Prize awarded to LOUIS B. CHAMBERLAIN, (of the Junior Class,) of Millbrook, N. Y.

Work for 1886, the same as for 1885.

10. Wm. H. Van Doren Prize for the best Essay on Christian Missions.

This prize consists of twenty dollars, the gift of the Rev. William H. Van Doren, D.D. It is open to competition for members of the Senior and Junior classes in both Sections; and for members of the Theological Seminary.

In 1885, it was awarded to P. W. Pitcher, of the Theological Seminary.

11. Junior Exhibition.

Eight members of the Junior Class are chosen each year, in equal numbers from the Peithéssophian and Philoclean Literary Societies, who deliver original speeches at an exhibition held on the Tuesday evening preceding Commencement. The selection is made by a committee of three persons, of whom one is chosen by each Society, and a third by the Faculty, and is based upon relative excellence as writers and speakers.

This prize, the gift, in 1885, of Ralph N. Perlee, Esq., was awarded to John DeWitt, Jr., of New Brunswick.

12. Hart Prize in English Literature.

A prize of twenty-five dollars is offered to the members of the Sophomore Class for the best essay upon a subject in Literature, assigned by the Professor of that Department, and awarded by a committee appointed by him.

This prize was awarded, in June, 1885, to Asa Wynkoop, of Catskill, N. Y., of the Sophomore Class.

Subject for 1886: "Walter Scott as a Novelist."

13. The Bussing Prizes for Ex Tempore Speaking.

Mrs. Ann Bussing, of New York City, has given to the College $1,000, the income of which (fifty dollars per annum) is to be expended each year for books, which shall be selected by the President of the College, and given as follows: The First Prize, of thirty dollars, to that member of the Senior Class who shall prove himself to be the best extemporaneous speaker; the Second

Prize, twenty dollars, to the second best extemporaneous speaker, of the Senior Class. The prizes are to be awarded by the Faculty of the College, or by a committee whom they shall name, and shall be awarded after a public debate to be held in the latter part of the college year. In awarding the prizes, "strict attention shall be given to logical and forcible presentation of thought, full and accurate information as to matters of fact, and grace and effectiveness in delivery." For the sake of training students in the clear expression of intelligent thought upon matters of public interest, each class, at least once a term, has an exercise in *ex tempore* speaking. The subject is announced to the class, and, after five minutes for thought, the members of the class discuss the subject or debate the question before a committee.

The First Prize was awarded, in 1885, to WM. E. FLORANCE, of New Brunswick; the Second to ADRIAN VERMEULE, Jr., of New Brunswick.

14. VAN VECHTEN PRIZE—ESSAY ON CHRISTIAN MISSIONS.

A. V. W. Van Vechten, Esq., of New York, has founded, in honor of his mother, the late Louisa Van Vechten, and his father, Rev. Dr. Samuel Van Vechten, a prize of sixty dollars, by the gift of $1,000, the prize "to be given annually to that student of Rutgers College who shall be adjudged by the Faculty of the Theological Seminary of the Reformed Church of America, at New Brunswick, to have presented an article, original with himself, and the best submitted—the most conclusive and inspiriting to strengthen faith in and love for Foreign Missions." Essays to be presented on or before May 1st, of each year.

The prize was divided, in 1885, between WM. SPADER WILLIS, of New Brunswick, and JOHN M. ALLEN, of Annandale.

15. HONORABLE MENTION FOR WORK OUTSIDE THE COURSE DONE WITHOUT REFERENCE TO A PRIZE.

For the encouragement of independent reading and study and original investigation, under the direction of the Faculty, hon-

orable mention is made of students who give evidence of thoroughness in such work, and pass a satisfactory examination.

For work done in the study of McCosh's *Intuitions*, honorable mention is made of WILLIAM SAMUEL BISHOP, of the Class of 1887. Honorable mention is also made of WILLIAM JAMES LANSLEY, of the Class of 1888, for an examination upon selections from Lamartine's "Voyage en Orient," Racine's "Bajazet" and "Andromaque," Fénelon's "Télémaque" and De Stael's "Corinne"—500 pages in all; also, for extra work done in draughting, plotting and map-drawing, from actual surveys.

LIBRARY AND MUSEUM.

1. LIBRARIES.

The Library of the College is open for consultation during each term, as follows: On Mondays, Tuesdays, Wednesdays, Thursdays and Fridays, from 8 to 8:40 A. M., and from 12 M. to 12:30 P. M., and from 2 P. M. to 4:30 P. M.; on Saturdays from 9 A. M. to 12 M. Students are allowed free access to the books, and are encouraged to become familiar with the proper methods of using a library for literary work. The collection of books has received considerable additions during the past year, and no effort will be spared to make it what the institution requires. Donations to this object, either in money or books, are earnestly solicited.

By the gift of a permanent fund of $1,000 from James Suydam, Esq., the Library is supplied with the leading learned periodical publications in the various departments.

By the courtesy of the Theological Seminary of the Reformed Church, the SAGE LIBRARY of about 30,000 volumes is opened to the Students of Rutgers for consultation; and under certain limitations books are drawn from it as well. It is within three minutes' walk of the College campus.

2. Museum and Apparatus.

The Trustees solicit contributions from the friends of the College to the collections of the Museum. It is their wish to increase greatly the present valuable collections by additions in all departments. Donations of specimens illustrating Geology, Mineralogy, Natural History, Numismatics and Antiquities, and the Industrial Arts, are earnestly requested. Ample rooms are provided in the new Geological Hall for the proper preservation and display of such specimens. By the kindness of numerous friends, suitable cases have been provided to receive the collections which the College already possesses, and they are now being arranged as rapidly as circumstances will allow.

The apparatus of the College for illustrating the various branches of Science is extensive and serviceable. It has been obtained as the wants of the classes demanded, and comprises many of the recent additions to Chemical and Philosophical apparatus. The students in Analytical Chemistry are provided with the requisite facilities for making analyses. The arrangements for these departments in the buildings recently erected are of the most ample and convenient description.

The College is indebted to many friends for gifts of apparatus and books during the year, and particularly to P. Vanderbilt Spader, Esq., (of the Class of '49,) of New Brunswick, for generous donations of bound periodicals.

REGISTER.

1. SOPHOMORE ORATORS (CLASS OF 1887).

ASA WYNKOOP, 1st Prize,	Catskill, N. Y.
SAMUEL H. VOORHEES, 2d Prize,	Princess Anne, Md.

The following are named in the order of their appointment according to merit:

F. A. PATTISON,	Metuchen.
S. D. DEMAREST,	New Brunswick.
H. N. PALMER, JR.,	New Brunswick.
W. P. MERRILL,	New Brunswick.
F. J. SAGENDORPH,	Hudson, N. Y.
H. J. MARCH,	New Brunswick.

2. JUNIOR EXHIBITION.

ORATORS FOR 1885.

Peithessophian Society.		*Philoclean Society.*	
E. W. DEWEY,	Fort Plain, N. Y.	L. B. CHAMBERLAIN,	New Brunswick.
W. H. DIXON,	Jersey City.	J. DEWITT, JR.,	New Brunswick.
D. V. REILEY,	New Brunswick.	A. L. STILLWELL,	Somerville.
G. A. VIEHMAN,	New Brunswick.	G. E. TALMAGE,	Amoy, China.

3. GRADUATING EXERCISES, JUNE 17TH, 1885.

HONORS.

WILLIAM E. FLORANCE,	New Brunswick,	*Latin Salutatory*,	1st Honor.
WILLIAM H. BOOCOCK,	Coxsackie, N. Y.,	*English Salutatory*,	2d Honor.
FRANK VAN BRAKLE,	Keyport,	*Philosophical Oration*,	3d Honor.
JOHN M. ALLEN,	Annandale,	*Scientific Oration*,	4th Honor.
WILLIAM E. FLORANCE,	New Brunswick,	*Valedictory*,	Rhetorical Honor.

ORATIONS.

E. K. Losee, Upper Red Hook, N. Y. Wm. H. Barnes, East Hampton, N. Y.
A. Vermeule, Jr., New Brunswick. A. Atkinson, New Brunswick.
L. A. Voorhees, New Brunswick. A. C. Payne, College Point, L. I.
L. F. Ruf, Freehold. M. N. Bemus, Jamestown, N. Y.
F. S. Scudder, Upper Red Hook, N. Y. G. W. Hart, Metuchen.
L. Bishop, Trenton.

4. Prizes Awarded, 1885.

GENERAL PRIZES.

Van Doren Prize for Essay on Missions, . P. W. Pitcher.
Van Vechten Prize for Essay on Foreign Missions, ... { Wm. Spader Willis. / John M. Allen.

SENIOR PRIZES.

Suydam Prize for Composition, . . . William E. Florance.
Suydam Prize for Natural Science, . . Louis Bishop.
Bradley Mathematical Prize, . . . Asher Atkinson.
Mineralogy Prize, ... W. H. Barnes.
Appleton Prize for Moral Philosophy, . . Wm. H. Boocock.
Bowser Prize for Best Thesis, . . . Arthur C. Payne.
Bussing Prize for Extemporaneous Debate, 1st, William E. Florance.
Bussing Prize for Extemporaneous Debate, 2d, Adrian Vermeule, Jr.

JUNIOR PRIZES.

Wilson Prize for Mental Philosophy, . . Louis B. Chamberlain.
Perlee Junior Orator Prize, . . . John DeWitt, Jr.

SOPHOMORE PRIZES.

Myron W. Smith Prize for Declamation, 1st, . Asa Wynkoop.
Myron W. Smith Prize for Declamation, 2d, Samuel H. Voorhees.
Hart English Literature Prize, . . . Asa Wynkoop.
Spader Prize for Modern History, 1st, . Stephen DuBois Demarest.
Spader Prize for Modern History, 2d, . . Henry Holmes Palmer, Jr.

FRESHMAN PRIZES.

Quick Prize for Grammar and Spelling, 1st, . MAURICE J. THOMPSON.
Quick Prize for Grammar and Spelling, 2d, MELVIN D. BRANDOW.
*Sloan Prizes for Best Preparation, (awarded September, 1885)—
First Prize, HARVEY KEELING; prepared at the Utica Free Academy, Utica, N. Y., GEORGE C. SAWYER, A.M., Principal.
Second Prize, CHARLES MAAR; prepared at J. R. Leslie's English and Classical School, Poughkeepsie, N. Y.

5. CLASS DAY EXERCISES.

IN THE CHAPEL.

ORATION,	FRANK S. SCUDDER,	Upper Red Hook, N.Y.
POEM,	LOUIS F. RUF,	Freehold.
CLASS HISTORY,	FRANK VAN BRAKLE,	Keyport.
CLASS PROPHECY,	LOUIS A. VOORHEES,	New Brunswick.
PRESENTATION OF CLASS MEMENTOES,	ASHER ATKINSON,	New Brunswick.
ADDRESS TO UNDERGRADUATES,	GEO. W. HART, JR.,	Metuchen.

ON THE CAMPUS.

IVY ORATION,	LOUIS BISHOP,	Trenton.
PLANTING OF THE IVY,	ARTHUR C. PAYNE,	College Point, L. I.
IVY ODE,	JOHN M. ALLEN,	Annandale.
PIPE ORATION,	MORRIS N. BEMUS,	Jamestown, N. Y.
ADDRESS TO THE PRESIDENT,	WILLIAM H. BARNES,	E. Hampton, N. Y.

6. ALUMNI ASSOCIATION.

OFFICERS FOR THE YEAR 1885–86.

REV. EDWARD P. TERHUNE, D.D., Class of '50, . .	President.
REV. A. D. CAMPBELL, Class of '62, ...	Vice-Presidents.
HON. GARRET A. HOBART, Class of '63, . . .	
PROF. ALEXANDER JOHNSTON, Class of '70, . .	
HERMAN V. ESSELSTEYN, ESQ., Class of '56, . . .	
REV. JAMES S. N. DEMAREST, Class of '72, . .	Treasurer.
JOHN S. VOORHEES, ESQ., Class of '76, ...	Secretary.
IRVING S. UPSON, A.M., Class of '81, . . .	Biographer.

*See page 14.

ORATOR FOR 1886.

Rev. William Irvin, D.D., Class of '51, . . .	Primarius.
Rev. Graham Taylor, Class of '70, . . .	Secundus.
Hon. Charles T Cowenhoven, Class of '62, . .	Inspectors of Election of Alumni Trustees.
Harry Neilson, Esq., Class of '73, . . .	
T. P. Hill, Esq., Class of '83, ...	

VEDDER LECTURER.

Rev. George S. Bishop, D.D., 1886, . . .	Orange.
Rev. John H. Oerter, D.D., 1887, ...	New York City.

Catalogues.

Former students of the College, whether graduates or not, are earnestly requested to keep the College informed of any change in their address or occupation, of works published, offices held, etc., both to facilitate the sending of the annual catalogue, and to furnish material for general catalogues, when printed. Catalogues of the College, etc., will be sent to alumni or friends of the College who send to the Secretary their addresses, for this purpose.

It is desired to secure for the library a complete set of all the publications issued by the College or relating to it, or written or compiled by any one in connection with it, whether periodical or occasional. A complete collection of *Rutgersensia* would be of great value to the College and its friends.

Quinquennial (General) Catalogue.

Acting under a recent resolution of the Board of Trustees, the Librarian of the College, Irving S. Upson, A.M., is now collecting materials for a new edition of the General Catalogue, to be published at some time before June, 1886. Any alumnus who, by accident, may have failed to receive a letter of inquiry, with blanks for answering questions proposed, will confer a favor upon the Trustees by addressing a line to the Librarian, stating this fact, and giving his address. Alumni and friends are requested to send to the Librarian information of the death of any alumnus recently deceased, or who may die during the coming year.

RUTGERS COLLEGE GRAMMAR SCHOOL.

[RE-ORGANIZED, WITH A NEW HEAD-MASTER.]

This School, which is under the control of the Board of Trustees and is in intimate relation with the College, affords excellent facilities for preparing boys to enter the classical and scientific departments of the College. Special care is taken to drill the pupils thoroughly in the principles of Mathematics, the Languages, Natural Sciences and kindred subjects. Its work, however, is not restricted to candidates for College. It has courses of study adapted to fit young men for business life, or to give them a general education as good as the best academies offer. The friends of the College, who have sons or wards to educate, will do well to examine carefully into its merits. During the last summer the boarding house was enlarged, doubling its capacity. Every room is now (Dec. '85) full. Full information will be given upon application to the Head-Master, E. T. TOMLINSON, A.M., New Brunswick, N. J.

F173
.R97

CATALOGUE

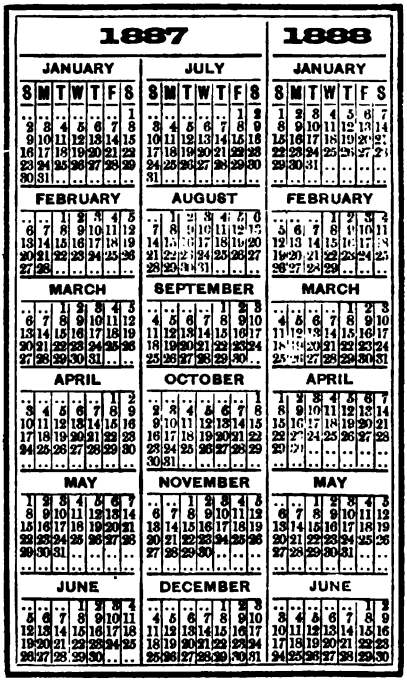
OF

RUTGERS COLLEGE

AT

NEW BRUNSWICK, N. J.

1886-'87.



1887

JANUARY

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1888

JANUARY

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APRIL

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MAY

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JUNE

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CATALOGUE

OF THE

OFFICERS AND STUDENTS

OF

RUTGERS COLLEGE

AT

NEW BRUNSWICK, N. J.

1886–7.

FOUNDED A. D. 1770.

NEW BRUNSWICK, N. J.:
DAILY HOME NEWS ELECTRIC PRINTING HOUSE.
1886.

CALENDAR.

1886.

DECEMBER 22, Wednesday: First Session ends. Vacation.

1887.

JANUARY 6, Thursday: Second Session begins.

JANUARY 27, Day of Prayer for Colleges.

APRIL 5, Tuesday: Second Session ends. Vacation.

APRIL 13, Wednesday: Third Session begins.

JUNE 19, Sunday: Baccalaureate Sermon.

JUNE 20–21, Monday (10 A. M.) and Tuesday:
Examinations for Admission.

JUNE 21, Tuesday:
Meeting of Alumni;
Exercises of the Literary Societies;
Junior Exhibition in the Evening.

JUNE 22, Wednesday:
Commencement. Vacation begins.

SEPTEMBER 20, Tuesday, 10 A. M.:
Examinations for admission.

SEPTEMBER 20, Tuesday, 10 A. M.:
Examinations for the removal of June Conditions.

SEPTEMBER 21, Wednesday: First Session begins; recitations.

DECEMBER 21, Wednesday: First Session ends. Vacation.

1888.

JANUARY 5, Thursday: Second Session begins.

TRUSTEES.

1886.

EX-OFFICIO.

HIS EXCELLENCY, LEON ABBETT, . . JERSEY CITY.

Governor of the State of New Jersey.

HON. MERCER BEASLEY, LL.D., ... TRENTON.

Chief-Justice of the State of New Jersey.

HON. JOHN P. STOCKTON, ... TRENTON.

Attorney-General of the State of New Jersey.

BY ELECTION.

Names.	*Residences.*	*Date of Election.*
MERRILL EDWARDS GATES, PH.D., LL.D., *President of the College.*	NEW BRUNSWICK,	MARCH 7, 1882.
REV. GUSTAVUS ABEEL, D.D.,	Newark,	July 22, 1845.
REV. T. E. VERMILYE, D.D., LL.D.,	New York City,	July 24, 1849.
HON. JOHN HOPPER,	Paterson,	July 22, 1851.
MAURICE E. VIELE, ESQ.,	Albany, N. Y.,	July 27, 1853.
REV. DAVID D. DEMAREST, D.D ,	New Brunswick,	April 13, 1858.
HON. JOSEPH P. BRADLEY, LL.D ,	Washington, D. C.,	June 29, 1859.
REV. FRANCIS M. KIP, D.D.,	Tompkinsville, S.I.,	Oct. 16, 1860.
HENRY L. JANEWAY, ESQ.,	New Brunswick,	April 8, 1862.
REV. GARRET C. SCHANCK,	Marlboro,	April 11, 1886.
STAFFORD R. W. HEATH, ESQ.,	Newark,	April 11, 1866.
REV. TALBOT W. CHAMBERS, D.D.,	New York City,	June 17, 1868.
REV. JOACHIM ELMENDORF, D.D.,	Poughkeepsie, N.Y.,	April 14, 1869.
REV. PAUL D. VAN CLEEF, D.D.,	Jersey City,	April 14, 1869.
WILLIAM C. FOWLER, ESQ.,	Brooklyn, N. Y.,	April 13, 1871.

Names.	*Residences.*	*Date of Election.*
Samuel Sloan, Esq.,	New York City,	June 20, 1871.
Hon. George C. Ludlow,	New Brunswick,	June 17, 1873.
Hon. William A. Newell,	Olympia, W. T.,	June 17, 1873.
Rev. Isaac S. Hartley, D.D.,	Utica, N. Y.,	June 17, 1873.
Rev. William Ormiston, D.D.,	New York City,	June 20, 1876.
Rev. John Gaston, D.D.,	Passaic,	June 20, 1876.
Hon. Henry W. Bookstaver,	New York City,	June 20, 1876.
Robert F. Ballantine, Esq.,	Newark,	June 20, 1876.
Rev. William Rankin Duryee, D.D.,	Jersey City,	March 5, 1878.
Rev. William J. R. Taylor, D.D.,	Newark,	June 18, 1878.
Rev. Abraham R. Van Nest, D.D.,	New York City,	Oct. 29, 1878.
William Clark, Esq.,	Newark,	Oct. 29, 1878.
Hon. George H. Sharpe,	Kingston, N. Y.,	March 4, 1879.
David Bingham, Esq.,	East Orange,	March 7, 1882.
George C. Churchill, Esq.,	Utica, N. Y.,	June 19, 1883.
Tunis G. Bergen, Ph.D.,	Brooklyn, N. Y.,	June 19, 1883.
Henry B. Baldwin, M.D,	New Brunswick,	June 17, 1884.
Frederick Frelinghuysen, Esq.,	Newark,	June 16, 1885.
Ernest J. Miller, Esq.,	Albany, N. Y.,	June 16, 1885.
Hon. Jonathan Dixon,	Jersey City,	June 22, 1886.
James Neilson, Esq.,	New Brunswick,	June 22, 1886.
Rev. Roderick Terry, D.D.,	New York City,	June 22, 1886.

Rev. DAVID D. DEMAREST, D.D., - - - New Brunswick.
Secretary of the Board.

JOHN C. ELMENDORF, Esq., - - - - - New Brunswick.
Treasurer.

Office—39 Albany Street.

STATED MEETINGS OF THE BOARD.

Last Tuesday in October, at 2 o'clock P. M.
First Tuesday in March, at 2 o'clock P. M.
Tuesday before Commencement, at 10 o'clock A. M.

James Thomas, *Janitor.*

FACULTY.

MERRILL EDWARDS GATES, PH.D., LL.D.,
PRESIDENT,
THEODORE FRELINGHUYSEN *Professor of Moral Philosophy.*

GEORGE H. COOK, LL.D.,
VICE-PRESIDENT,
Professor of Geology and Agriculture.

REV. T. SANDFORD DOOLITTLE, D.D.,
COLLEGIATE CHURCH *Professor of Rhetoric, Logic, and Mental Philosophy.*

REV. JACOB COOPER, D.D., D.C.L.,
Professor of the Greek Language and Literature.

REV. CARL MEYER, D.D.,
Professor of Modern Languages.

FRANCIS CUYLER VAN DYCK, A.M.,
Professor of Physics and Experimental Mechanics.

EDWARD A. BOWSER, C.E., LL.D.,
Professor of Mathematics and Engineering.

GEORGE BENJAMIN MERRIMAN, A.M.,
Professor of Mathematics and Astronomy.

PETER TOWNSEND AUSTEN, PH.D., F.C.S.,
Professor of General and Applied Chemistry.

REV. CHARLES EDWARD HART, D.D.,
Professor of the English Language and Literature.

AUSTIN SCOTT, PH.D.,
VOORHEES *Professor of History, Political Economy, and Constitutional Law.*

FRANCIS AUGUSTUS WILBER, M.S.,
Adjunct Professor of Analytical Chemistry.

LOUIS BEVIER, PH.D.,
Adjunct Professor of Modern Languages.

EDGAR S. SHUMWAY, A.M.,
Professor of the Latin Language and Literature.

JOHN THOMAS HONEYCUTT, 1st Lieutenant 1st U.S. Artillery,
Professor of Military Science and Tactics.

ALFRED A. TITSWORTH, M.S., C.E.,
Professor of Graphics and Mathematics.

IRVING STRONG UPSON, A.M.,
Librarian.

The names of the Faculty after that of the President are arranged according to seniority of appointment.

CATALOGUE OF STUDENTS

FOR THE YEAR BEGINNING SEPTEMBER 22, 1886.

GRADUATE STUDENTS.

Names.	*College.*	*Residences.*	*Rooms.*
Pennington Ranny, A.B., Chemistry.	Princeton,	Elizabeth,	Elizabeth.
Louis A. Voorhees, A.B., Chemistry.	Rutgers,	New Brunswick,	75 Carroll Place.

SENIOR CLASS.

Classical Section.

Names.	*Residences.*	*Rooms.*
William Samuel Bishop,	East Orange,	123 George St.
Stephen DuBois Demarest,	New Brunswick,	Seminary Place.
Albert Benjamin Herman,	Warsaw, N. Y.,	52 Hertzog Hall.
William Pierson Merrill,	New Brunswick,	Raritan Ave.
Henry Holmes Palmer, Jr.,	New Brunswick,	College Ave.
Franklin Ambler Pattison,	Metuchen,	Metuchen.
Frank J. Sagendorph.	Hudson, N. Y.,	College Ave.
Asa Wynkoop,	Catskill, N. Y.,	College Ave.

Scientific Section.

Names.	*Residences.*	*Rooms.*
George Alexander Ballantine,	Newark,	College Ave. and Hamilton St.
Warren James Brodie,	Geneseo, N. Y.,	George and Albany Sts.
Thurston Walker Challen,	New Brunswick,	Hamilton St.
Harry Joseph March,	New Brunswick,	Somerset St.
David Trumbull Marshall,	Metuchen,	Metuchen.
Harry Atwater Smith,	Somerville,	96 George St.
Harold Tait,	Metuchen,	Metuchen.
Burton Morss Tremper,	Kingston, N. Y.,	96 George St.
Isaac Lewis Winckler,	New Brunswick,	Hardenbergh St.

JUNIOR CLASS.

Classical Section.

Names.	*Residences.*	*Rooms.*
Wm. Armitage Beardslee,	West Troy, N. Y.,	29 Hertzog Hall.
Melvin Day Brandow,	New Brunswick,	Hamilton St.
Fred Hutchinson Cook,	Bound Brook,	Bound Brook.
Harmon Bay Niver,	Ancram Lead Mines, N. Y.,	Hamilton St.
Frederick William Parker,	New Brunswick,	College Ave.
Sherman Grant Pitt,	Crary's Mills, N.Y.,	College Ave.
Henry Livingston Rupert,	East Millstone,	East Millstone.
Herbert Giles Sharpley,	Mitchellville, Iowa,	29 Hertzog Hall
John Howard Voorhees,	Middlebush,	Middlebush.
Oscar McMurtry Voorhees,	Bedminister,	46 Hertzog Hall.
Ferdinand Schenck Wilson,	Millstone,	46 Hertzog Hall.
Charles Sterling Wyckoff,	Woodhaven, L. I.,	College Ave.

Scientific Section.

Names.	*Residences.*	*Rooms.*
Edwin Moore Alden,	Metuchen,	Metuchen.
Richard Donne Divine,	Elizabeth,	Elizabeth.
William James Lansley,	Elizabeth,	Elizabeth.
Henry W. Lockett,	Cranford,	Cranford.
Robert E. Parsons.	Flushing, N. Y.,	61 New St.
Isaac Wright Reynolds,	Montrose, N. Y.,	61 New St.
William Bishop Tompkins,	East Orange,	123 George St.
Edward Austin Waldron,	New Brunswick,	143 George St.

SOPHOMORE CLASS.

Classical Section.

Names.	*Residences.*	*Rooms.*
Harry Randolph Anderson,	Rahway,	Rahway.
Charles Best Benson,	Hudson, N. Y.,	78 George St.
Arthur J. Collier,	Coxsackie, N. Y.,	96 George St.
Byron Cummings,	West Bangor, N. Y.,	86 Bayard St.
John Ten Eyck DeWitt,	Wallkill, N. Y.,	86 Bayard St.
Samuel DeWitt Drury,	Rhinebeck, N. Y.,	79 George St.
George VanWagenen Duryee,	Jersey City,	78 Bayard St.
William Watson Hallock,	Brooklyn, N. Y.,	Easton Ave.
Isaac McMunn Holly,	New York City,	cor. George and Washington St.
Charles Edwin Ingersoll,	New Brunswick,	Easton Ave.
James Harvey Keeling,	Utica, N. Y.,	17 Hertzog Hall
George Armstrong Liggett,	Rahway,	Rahway.
Harvey Losee,	Upper Red Hook, N. Y.,	79 George St.
Charles Maar,	Poughkeepsie, N. Y.,	17 Hertzog Hall
Kumakichiro Oishi,	Tokio, Japan,	57 Albany St.
Sam Corle Schenck,	Lambertville,	78 Bayard St.
Clarence Goodwin Scudder,	Vellore, India,	79 George St.
Charles Judson Scudder,	Creston, Neb.,	79 George St.
William Campbell Sebring,	Saugerties, N. Y.,	73 Bayard St.
George Joseph Steinmetz,	Cedar Grove,	Hamilton and Easton Ave.
George Boice Thompson,	Colt's Neck,	George St.
Maurice J. Thompson,	New Brunswick,	Hardenberg St.
Elias Wortman Thompson,	Readington,	31 Hertzog Hall

Scientific Section.

Names.	*Residences.*	*Rooms.*
Albert Cornelius Arend,	Trenton,	Trenton.
Harold Dissy Force,	Newark,	4 Schuyler St.

Names.	*Residences.*	*Rooms.*
Richard Thurston Greene,	Elizabeth,	Elizabeth.
Albert Bodwell Harrison,	Irvington,	Irvington.
Howard Crosby Hasbrouck,	Bound Brook,	Bound Brook.
Edward Howell,	Morristown,	86 Bayard St.
Cornelius Bruyn Marshall,	Metuchen,	Metuchen.
George Morris,	New Monmouth,,	167 Neilson St.
William Shields Myers,	Sidney, N. Y.,	78 Bayard St.
Frank D. Norris,	Shavertown, N. Y.,	Hamilton St.
Frank Halsey Skinner,	Belleville,	4 Schuyler St.
Joseph Scott Stillwell,	Chatsworth, Ill.,	College Ave. and George St.
John Phillips Street,	Beverly,	86 Bayard St.

FRESHMAN CLASS.

CLASSICAL SECTION.

Names.	*Residences.*	*Rooms.*
FREDERICK AUSTIN AIKIN,	Warsaw, N. Y.,	61 New St.
J. FREDERICK BURG,	Albany, N. Y.,	Hertzog Hall.
HOWARD WILBUR ENNIS,	Albany, N. Y.,	19 Hertzog Hall.
GARRETT J. FOHNSBEE,	So. Shodack, N.Y.,	19 Hertzog Hall.
JAMES FOUNTAIN,	Matawan,	35 Hertzog Hall.
GEORGE WASHINGTON GLASIER,	Warsaw, N. Y.,	61 New St.
ROBERT PAUL GREEN,	New Brunswick,	65 French St.
GERARD HALLOCK,	Linden,	Albany and George St.
HORACE STERLING HAWES,	Richmond, Va.,	Newark.
IRVING HOAGLAND,	Franklin Park,	86 Bayard St.
ARTHUR FREDERIC MABON,	New Brunswick,	Seminary Place.
WARREN ACKERMAN MAYOU,	Troy, Kansas,	College Avenue.
STEPHEN WARD RIGHTER,	Parsippany,	23 Hertzog Hall.
WARREN REDCLIFFE SCHENCK,	New Brunswick,	New Brunswick.
HENRY J. SCUDDER,	Saugerties, N. Y.,	21 Hertzog Hall.
ARTHUR SPALDING,	Spotswood,	23 Hertzog Hall.
ELIAS BROWN VAN ARSDALE,	Paterson,	12 Hertzog Hall.
JOHN S. VAN ORDEN,	Spring Valley, N.Y.,	21 Hertzog Hall.
WASHINGTON IRVING VAN RIPER,	Paterson,	123 George St.
ALEXANDER VAN WAGONER,	Paterson,	123 George St.
CHARLES WILLIAM VAN ZEE,	Pamrapo,	35 Hertzog Hall.
RALPH SPENSER VOORHEES,	Bedminster,	College Farm.
WILLIAM DAVIS WARD,	New Hackensack, N. Y.,	12 Hertzog Hall.
ERASTMUS AMES WHITENACK,	Bedminster,	78 Bayard St.

Scientific Section.

Names.	*Residences.*	*Rooms.*
Elliot Clayton,	Freehold,	16 George St.
Charles Divine,	Elizabeth,	Elizabeth.
Howard Elting,	Gardiner,	79 George St.
Theodore Jackson Gillies,	Plainfield,	Plainfield.
Howard Goff,	East Creek,	78 Bayard St.
Howard Lyman Hoyt,	Bound Brook,	New Brunswick.
J. Ellis Irick,	Vincentown,	86 Bayard St.
Charles Frederick Kocher,	Newark,	Newark.
Gwin Lemassena,	Newark,	George St.
Samuel Hobart Lockitt,	Cranford,	Cranford.
Malcolm Cameron Ludlum,	South Dennis,	85 Bayard St.
Warren M. Osborn,	Point Pleasant,	Hamilton St.
John Alfred Potter,	Rahway,	Rahway.
Robert Schmitz,	Egg Harbor City,	Hamilton St.
Louis William Stotesbury,	Matteawan, N. Y.,	61 French St.

SPECIAL STUDENTS.

NOT CANDIDATES FOR A DEGREE.

Names.	*Residences.*	*Rooms.*
William Lewis Dayton,	Brooklyn, N. Y.,	9 Paterson St.
George Benjamin Divine,	Elizabeth,	Elizabeth.
Harry Dreer McCormick,	Newark,	Newark.
Baldwin Hasbrouck,	East New Brunswick,	East New Brunswick.
Louis Brodhead Hasbrouck,	East New Brunswick,	East New Brunswick.
James Hasbrouck LeFevre,	Middlebush,	Middlebush.
William Condit Ogden,	Parsippany,	86 Bayard St.
John Osborn Polak,	Plainfield,	86 Bayard St.
George Edwin Tomlinson,	Adams Centre, N.Y.	Hamilton St.

SUMMARY.

Graduates	2	Sophomores	36
Seniors	17	Freshmen	39
Juniors	20	Special Students	9
		Total	123

CLASSICAL DEPARTMENT.

1. Admission.

Examinations for admission to the College will be held on Monday and Tuesday of Commencement week, (see Calendar, page 2,) beginning at 10 o'clock Monday morning. Applicants for admission may also be examined on Tuesday, the twentieth of September, at 10 A. M. Students who can do so are advised to be present for examination in June.

From certain preparatory schools of approved standing, students are admitted (conditionally) upon the Principal's certificate.

Examinations will be both written and oral.

Candidates for admission to advanced classes must sustain a satisfactory examination upon the subjects previously studied by the class which they propose to enter, as well as on those required for admission into the Freshman Class. Under this regulation, students are admitted at any time during the collegiate year.

Students who desire to pursue selected branches of study may do so, if properly prepared to pursue them with the regular classes. Special provision is made for such students in the Scientific Department. All such students are required to take examinations with the class with which they study, and sufficient work must be taken to occupy fully the student's time.

It is expected that students who present themselves will be prepared, by careful study and by *reviews* of their work, to pass successfully a thorough examination on the subjects which are required.

Only such students are admitted with conditions as are, in the opinion of the examiners, so nearly prepared as to be able to make up all deficiencies during the first two months of the term, meanwhile maintaining a good standing in their class.

Conditioned students will have an opportunity given them to remove their entrance conditions as early as possible in the first term. It is expected that *all entrance conditions* will be made up before the Thanksgiving recess.

SLOAN PRIZES FOR THE BEST ENTRANCE EXAMINATIONS, CLASSICAL COURSE.

A FIRST PRIZE OF ONE HUNDRED DOLLARS in cash and a SCHOLARSHIP YIELDING $300, to apply on term bills; and a SECOND PRIZE OF FIFTY DOLLARS in cash and a SCHOLARSHIP YIELDING $300, to apply on term bills, will be awarded to the students who shall be adjudged by the examiners to have passed the best examination among the applicants for admission to the Freshman Class, in 1887. The names of the successful candidates, and of the schools at which they prepared for College, will be printed in the annual catalogue. The cash prizes will be awarded, one-half at matriculation and one-half at the end of the second term of the Freshman year. The scholarship funds will be applied to cancel term bills for tuition during the course, and will be forfeited if the student's general average on the work of the year falls below 80 on a scale of 100.

These two cash prizes have been given for five years by Hon. SAMUEL SLOAN, of New York, a member of the Board of Trustees.

The FIRST PRIZE, September, 1883, was awarded to STEPHEN DUBOIS DEMAREST, prepared at the Rutgers College Grammar School, New Brunswick; the SECOND PRIZE, to WILLIAM PIERSON MERRILL, prepared at the High School, New Brunswick.

The FIRST PRIZE, September, 1884, was awarded to MAURICE J. THOMPSON, prepared at the Somerville Preparatory School, Somerville; the SECOND PRIZE, to SHERMAN GRANT PITT, prepared at the State Normal School, Potsdam, N. Y.

The FIRST PRIZE, September, 1885, was awarded to JAMES HARVEY KEELING, prepared at the Utica Free Academy, N. Y.; SECOND PRIZE, to CHARLES MAAR, prepared at J. R. Leslie's English and Classical School, of Poughkeepsie, N. Y.

The FIRST PRIZE, September, 1886, was awarded to JACOB FREDERICK BURG, prepared at the Rutgers College Grammar School, New Brunswick; the SECOND PRIZE, to ALEXANDER VAN WAGONER, prepared at the same school, New Brunswick, E. T. TOMLINSON, A. M., Head-Master.

REQUIREMENTS FOR ADMISSION.

The following, or a full equivalent, are the requirements for admission to the Freshman Class:

LATIN.—Harkness's or Allen and Greenough's, or Gildersleeve's Latin Grammar, including the principles of Prosody.

Jones' Latin Composition, or the first 44 sections of Arnold's Latin Prose Composition, or an equivalent.

Cæsar, Four Books of the Gallic War, [or Books I. and II. and Sallust's Catiline.]

Vergil, Æneid, 6 Books.

Seven Orations of Cicero, of which it is recommended that the orations for the Poet Archias, on the Manilian Law, and for King Deiotarus shall be three.

Questions on the subject-matter, the history, the geography and the mythology involved in the Latin read. *Students will be tested in reading "at sight" easy Latin (e. g., Cæsar, Sallust, Cicero, Quintus, Curtius); and a map of Italy, to be drawn from memory, at the examination, will be required, together with familiarity with the classical geography of Gaul and Spain; and Smith's Smaller History of Rome (or an equivalent history of this period) to the time of the Empire.*

GREEK.—Hadley's or Goodwin's Greek Grammar, including the principles of Prosody, and of *Accentuation.*

Xenophon's Anabasis—three books, or an equal amount of Goodwin's Greek Reader.

Arnold's First Greek Book, or Whiton's First Greek Book, entire; and Jones' Exercises in Greek Composition or Sidgwick's First Greek Writer, Introduction and 60 exercises.

Homer—The Iliad, three books (omitting the catalogue of the ships).

Questions on the subject-matter, etc., as above.

Greek History will be required, Smith's Smaller History of Greece, or an equivalent; students will be tested at the entrance examinations in reading at sight easy Greek prose; and a map of Greece, with a good knowledge of the Geography of the Greek Islands and of Asia Minor, will be required.

MATHEMATICS.—Arithmetic complete, including the Metric System.

Algebra through Quadratic Equations, including Radicals; or the first 18 chapters of Wentworth's Complete Algebra.

Plain Geometry—four books of Wentworth, or an equivalent, *including the Problems and Exercises.*

Careful attention should be given to the *exercises* in Geometry, as they greatly aid in acquiring readiness in geometrical reasoning.

THE ENGLISH BRANCHES:

Geography:—

English Grammar:—

Spelling:—

History of the United States (Johnston's History of the United States; Higginson's Young Folks' History; Swinton's Condensed History of United States).

A short English essay is also required, to be written at the examination, on some theme drawn from books announced in advance; the essay to be correct in spelling, punctuation, division into paragraphs, grammar and expression. In June and September, 1887, the themes will be drawn from these books, which all students who apply for admission then should have read carefully: Shakespeare's *King Lear;* Tom Brown's *School Days at Rugby;* Goldsmith's *Vicar of Wakefield;* Wordsworth's *Ode on Immortality.*

In 1888, students should be familiar with Hawthorne's *Marble Faun;* Shakespeare's *Midsummer Night's Dream;* Gray's *Elegy;* Coleridge's *Ancient Mariner.*

2. Suggestions in Regard to Preparation.

Latin.—In preparing in Latin, the student should give close attention to the regular prose constructions of the language, and especially, in reading Cæsar or Sallust, to the forms of "indirect discourse." He should be thoroughly drilled in the use and the force of the moods and *tenses*, the consecution of tenses, the gerundive construction, etc., and should be taught to analyze the sentence into subject and predicate, and the words, phrases or clauses which modify the subject and the predicate.

Latin Composition.—The student should have as much exercise in writing Latin as possible. From the first, exercises in rendering English into Latin, both orally and in writing, are earnestly recommended.

Pronunciation.—The system followed is the Roman. For correctness of pronunciation, the rules of quantity are necessary to those who have not been thoroughly accustomed to the correct sound of the Latin words.

Greek.—The applicant must be thoroughly familiar with the leading principles of the whole Grammar, including accent, quantity and prosody.

In pronunciation, the accent must be followed in prose; but in poetry, regard will be had only to quantity.

Work done in reading other authors than those named in the requirements will be accepted, provided the pupil can pass upon a *full* equivalent.

Mathematics.—Attention is especially called to the Metric System of Weights and Measures, a practical knowledge of which is indispensable, since it is used in the class-room; and to the *essential importance of a thorough preparation in the elements of Algebra*, on which subsequent success in Mathematics so much depends. The mistake is often made of passing too hurriedly over the first few chapters of Alge-

bra. The whole book will be more quickly and surely mastered if the first part be studied slowly and thoroughly, with frequent reviews.

In preparing in Mathematics the student should acquire a proficiency and readiness in the application of the principles; and to that end the careful solution of numerous and varied examples is earnestly recommended. It is also desirable to cultivate habits of neatness and order in the presentation of work on the blackboard or on paper.

UNITED STATES HISTORY.—Candidates for admission are examined in the History of the United States, with special reference to the colonization of the several States, the forms of government which existed previous to the War for Independence, the causes and principal events of that war, the period of the Confederation, the establishment of the Federal Constitution, with the general history subsequent to that event.

3. COURSE OF INSTRUCTION.

The COURSE OF INSTRUCTION occupies four years, with three terms in each year.

The following is a scheme of the studies of the course. It furnishes an exhibit of the amount of work required of students during the four years, and indicates to candidates for advanced standing the equivalents which will be accepted from them:—

FRESHMAN CLASS.

Exercises during each term of the year in Composition and Declamation.
Bible-Class, Sabbath morning.

FIRST TERM, THIRTEEN WEEKS.

1. LATIN.—4 hours a week.—Cicero, De Amicitia; Oral and Written Composition; Shumway's Latin Synonymes; Halsey's Etymology.

2. GREEK.—4 hours a week.—Lucian's Timon, or three books of Homer Sidgwick's First Greek Writer, beginning with the 61st exercise.

3. MATHEMATICS.—4 hours a week.—Wentworth's Geometry, from Book V.
4. RHETORIC.—2 hours a week.—Kellogg ; Lectures ; Essays.
5. PHYSIOLOGY.—2 hours a week.—Dalton ; Lectures.

SECOND TERM, THIRTEEN WEEKS.

1. LATIN.—4 hours a week.—Livy ; Composition.
2. GREEK.—4 hours a week.—Demosthenes' Olynthiac Orations, 2d and 3d, and one Philippic ; Sidgwick's First Greek Writer finished ; Jebb's Primer of Greek Literature.
3. MATHEMATICS.—5 hours a week.—Wentworth's Geometry completed ; Wentworth's Algebra from Logarithms.
4. ENGLISH LITERATURE.—2 hours a week.—History of the English Language, Lounsbury; Study of Words, Trench.
5. COMPARATIVE ZOÖLOGY.—1 hour a week.—Orton.
6. ELOCUTION.—Lectures and Declamations.

THIRD TERM, TEN WEEKS.

1. LATIN.—4 hours a week.—Horace ; Mythology and Antiquities.
2. GREEK.—4 hours a week.—Isocrates' Panegyric, Ed. Felton ; Wilkins' Manual of Greek Prose.
3. MATHEMATICS.—4 hours a week.—Wentworth's Algebra completed.
4. BOTANY.—2 hours a week.—Gray.
5. ENGLISH LITERATURE.—2 hours a week.—An English Author.
6. ENGLISH COMPOSITION.—Exercises.

SOPHOMORE CLASS.

Exercises throughout the year in Composition and Declamation.
Bible-Class, Sabbath morning.

FIRST TERM.

1. LATIN.—4 hours a week.—Cicero's Second Phillipic and De Oratore ; Latin Composition.
2. GREEK.—4 hours a week.—Sophocles' Œdipus Rex ; Wilkins' Manual of Greek Prose Composition.
3. INORGANIC CHEMISTRY.—3 hours a week.—Lectures, with Experiments, Barker.
4. MATHEMATICS.—5 hours a week.—Wentworth's Trigonometry, Plane and Spherical.

SECOND TERM.

1. LATIN.—3 hours a week.—Tacitus, De Oratoribus and Historiæ ; Composition.
2. GREEK.—3 hours a week.—Thucydides, one book ; Wilkins' Manual of Greek Prose Composition.
3. MATHEMATICS.—3 hours a week.—Bowser's Analytic Geometry.

4. ANCIENT AND MODERN HISTORY.—4 hours a week.—Fisher's Outlines, with Essays by the Class.

5. INORGANIC CHEMISTRY.—3 hours a week.—Lectures, with Experiments, Barker.

THIRD TERM.

1. LATIN.—4 hours a week.—Pliny's Letters, Terence or Plautus; History of Latin Literature.

2. GREEK.—4 hours a week.—Aristophanes' Knights, Koch's Ed.,; Wilkins' Manual of Greek Prose Composition completed.

3. MATHEMATICS.—3 hours a week.—Bowser's Analytic Geometry.

4. HISTORY.—2 hours a week.

5. INORGANIC CHEMISTRY.—3 hours a week.—Lectures, with Experiments, Barker.

JUNIOR CLASS.

Exercises throughout the year in Composition and Original Declamation. Bible-Class Sabbath morning.

FIRST TERM.

PRESCRIBED STUDIES:

1. GREEK.—3 hours a week.—Plato's Phædo, Wagner's Ed.; Buckholz's Anthology, Bändchen II.

2. MENTAL PHILOSOPHY.—4 hours a week.—Porter's Elements of Intellectual Philosophy and Lectures, with Essays on Metaphysical Subjects.

3. PHYSICS.—2 hours a week.—Deschanel; Lectures, with Experiments.

4. GERMAN.—3 hours a week.—Whitney's Brief German Grammar.

5. HISTORY.—2 hours a week.—The English Constitution.

ELECTIVE STUDIES, at least one of which is to be pursued; the course in Mathematics and that in Chemistry, if chosen, hold throughout the year; the other electives are arranged with a course for each term.

1. MATHEMATICS.—Differential and Integral Calculus, Bowser.

2. CHEMISTRY.—Experimental Chemistry, Elliot & Storer; Qualitative Analysis, Fresenius; Laboratory Practice.

3. ENGLISH.—Sweet's Anglo-Saxon Primer; Chaucer.

4. LATIN.—Cicero, De Natura Deorum; Writing Latin.

5. FRENCH.

SECOND TERM.

PRESCRIBED STUDIES:

1. LATIN.—3 hours a week.—The Institutes of Justinian, or Gaius; Morey's Outlines of Roman Law; Writing Latin.

2. MENTAL PHILOSOPHY AND LOGIC.—3 hours a week.—Porter's Elements of Intellectual Philosophy, and Lectures; Essays on Metaphysical Subjects; LOGIC.—Jevons-Hill's Logic.

3. PHYSICS.—2 hours a week.—Deschanel; Lectures with, Experiments.
4. GERMAN.—3 hours a week.—German Reader.
5. ASTRONOMY.—3 hours a week.—Newcomb & Holden.

ELECTIVE STUDIES, at least one of which is to be pursued:

1. MATHEMATICS.—Calculus, Bowser.
2. CHEMISTRY.—Qualitative Analysis, Fresenius; Lectures; Laboratory Practice.
3. ENGLISH.—Shakespeare.
4. GREEK.—Aristotle's Ethics, Books I. and II.
5. FRENCH.

THIRD TERM.

PRESCRIBED STUDIES:

1. HISTORY OF CIVILIZATION.—4 hours a week.—Guizot; Essays.
2. GERMAN.—3 hours a week, recitations; 1 hour a week, Lecture on German Literature.—Classic Authors.
3. PHYSICS.—2 hours a week.—Deschanel; Lectures, with experiments.
4. ENGLISH LITERATURE.—2 hours a week.

ELECTIVE STUDIES, at least two of which are to be pursued:

1. GREEK.—Plato's Republic. Books V. and VI.
2. LATIN.—Catullus, Tibullus, Propertius.
3. MATHEMATICS.—Calculus, Bowser.
4. CHEMISTRY.—Qualitative Analysis, Fresenius; Lectures; Laboratory Practice.
5. ENGLISH.—Milton.
6. FRENCH.
7. METAPHYSICS.

SENIOR CLASS.

Exercises throughout the year in Composition and Original Declamation.
Bible-Class, Sabbath morning.

FIRST TERM.

PRESCRIBED STUDIES:

1. MORAL PHILOSOPHY.—4 hours a week.—Calderwood's Handbook; Lectures; Essays.
2. POLITICAL ECONOMY.—4 hours a week.—Walker and Perry; Lectures.
3. PHYSICS.—2 hours a week.—Deschanel; Lectures.
4. LECTURES.—1 hour a week, on THE SCIENCE AND ART OF TEACHING, and on SOCIAL SCIENCE, HISTORY, ARCHÆOLOGY, etc.

ELECTIVE STUDIES, at least two of which are to be pursued; courses in Senior Elective work are chosen at the beginning of the first term and pursued for the entire year:

1. GREEK.—Selections from Aristotle's Organon with Porphyry's Isagoge.

2. Astronomy.—Loomis' Practical Astronomy; Observatory Work; Lectures.

3. Physics.—Electricity.

4. Modern Languages.—German; French.

5. Chemistry.—Quantitative Analysis, Fresenius; Lectures; Laboratory Practice.

6. Latin.—Rhetorical, or Legal, or Patristic.

7. History.—Comparative Study of the Growth of Modern Constitutions.

8. Hebrew.—(Extra hours.)

SECOND TERM.

PRESCRIBED STUDIES:

1. Political Ethics; the Duties of Citizenship.—4 hours a week.—Lieber and Woolsey, Lectures, Essays.

2. Constitution of the United States.—5 hours a week.—Cooley; Essays.

3. Architecture.—2 hours a week, the first half of the term.—Lectures, illustrated by Stereopticon views.

4. Geology.—2 hours a week, the last half of the term.—Lectures and Dana.

ELECTIVE STUDIES., at least two of which are to be pursued:

1. Latin.—Selections from Lucretius, and Vergil's Georgics.

2. Astronomy.—Loomis' Practical Astronomy; Observatory Work; Lectures.

3. Modern Languages.—German; French.

4. Chemistry.—Quantitative Analysis, Fresenius; Lectures; Laboratory Practice.

5. Physics.—Electricity.

6. Greek.—Buckholz's Greek Anthology, Part II.

7. History.—European History of the last Century.

8. Hebrew.—(Extra hours.)

THIRD TERM.

1. Moral Philosophy.—4 hours a week.—The Evidences of Christianity; Lectures on Practical Ethics.

2. Geology.—4 hours a week.—Lectures and Dana.

3. Architecture.—3 hours a week.—Lectures.

ELECTIVE STUDIES, at least two of which are to be pursued:

1. Greek.—Trendelenburg's Elmenta Log., Aristot.; Lectures on the Organon.

Modern Languages.—German; French.

3. Chemistry.—Quantitative Analysis, Fresenius; Lectures; Laboratory Practice.

4. Astronomy.—Loomis' Practical Astronomy; Observatory Work; Lectures.

5. Physics.—Electricity.

6. Latin.—Latin Style; Lectures and Practice.

7. History.—The Historical Drama—Shakespeare, Schiller, &c.

8. Hebrew.—(Extra hours.)

4. Remarks on the Course of Study.

In the above Schedule all the studies of the Freshman and Sophomore years are prescribed, and are intended to be of such a character as will furnish the sound basis of a liberal education, whatever profession or career is subsequently chosen. During the Junior and Senior years certain subjects are prescribed for all candidates for a degree, while other subjects are made elective, at least one of which must be pursued by each student, in the Junior year, and at least two in the Senior year.

Moral Philosophy, Practical Ethics and the Duties of Citizenship.

Moral Philosophy is taught during the Senior year by the study of text-books, by comments and criticisms, and by lectures. Full and intelligent discussion in the class-room is encouraged, in the belief that mere memorizing and reciting does not so teach such truth as to make it vitally the student's own.

The definite aim of the work in this department is not simply to set before the student what certain authors have written concerning theories of morality and virtue; but to make the study of the fixed and eternal distinction between right and wrong tend directly, so far as possible, to the voluntary and intelligent acceptance of the moral law, by every student, in the daily and hourly direction of his life.

Lieber's Political Ethics is made the basis of one term's work. A course of Lectures on Practical Ethics is given; and lectures and discussions on the Duties of Citizenship are made an especial feature of this course of study.

Brief addresses are made from time to time upon the questions of Social Science, and upon the Reforms which are before the public as problems of "Applied Christianity."

LANGUAGES.

LATIN.—While the chief purpose kept before the student during the earlier portion of the course is the thorough mastery of the language, as far as is practicable the study of the history, institutions and literature of the Romans is pursued in connection with the Latin read. In the selection of text, care is taken to cover the principal periods of the literature, but chief prominence is given to those works which present the most valuable subject-matter for the student of Roman civilization and culture. In the later portion of the curriculum special courses are given in Roman Oratory, Law, Philosophy, etc.

From the beginning of the course instruction is given in part by means of questions and answers in Latin. Optional classes are formed for the better development of this method, and for the study of the History, Social Life and Institutions of the Romans.

Students should have Harpers' or White's Latin-English, and White's English-Latin Lexicons, and a Classical Atlas.

GREEK.—The Classical Greek authors are read by the whole class during the entire Freshman and Sophomore years, and one term of the Junior year; also, by students who elect Greek, during the whole of the Junior and Senior years. The course is intended to embrace at least one complete treatise from a leading author belonging to each period from Homer to Lucian. While the amount read is distinctly indicated by the Catalogue, it is the purpose to vary the authors, or the portions from the same author, from year to year.

Promising students are encouraged to take special courses of study, in addition to the regular class work; and private instruction, supplemented by an efficient library, is constantly given. The following books of reference are recommended: Smith's Classical Dictionaries, 6 vols.; Jelf's Greek Grammar; Krüger's Greek Grammar and Kühner's ausführliche griechische Grammatik; Liddell and Scott's

Lexicon, 7th Oxford Edition; Grote's History of Greece, and Mahaffy's History of Greek Literature.

ENGLISH LANGUAGE AND LITERATURE.—The course in English embraces, with the elective study of Anglo-Saxon, the required study of the history of the English language and its literature, and the critical reading of English classics. A course of private reading is prescribed, upon which examinations are held. Essays in literary criticism are required during the Sophomore year. The elective study of the language and literature is pursued during the Junior year.

GERMAN is taught, three hours per week, to students in both sections of the class, throughout the Junior year; and, in addition to this, lectures are given upon German Literature. While accurate grammatical work is insisted upon, the aim of the course is to enable the student to read ordinary German prose with ease. Exercises in writing German are continually required.

In the Senior year, German may be pursued as an elective study by the classical students; and German text-books are used with certain students in the Chemical Laboratory, and in the study of history and philosophy.

FRENCH is taught throughout the Freshman year, in the Scientific Course, and is continued during the Sophomore and the Junior years, in the use of French text-books in studying natural science and history. Classes use *French text-books in Physics* and in the *History of Civilization.* The aim of the course is to make the grammatical and linguistic training in the study of this language as valuable to the student as possible; and to accustom him to use French books and periodicals with perfect freedom in his professional studies and work.

In the Classical Course, instruction in French is offered to those who wish to take it as a study outside the course, and a course in French has been made an elective study for the Junior year.

HEBREW.—This language is taught as an extra study during the Senior year if any students desire to pursue it.

MATHEMATICS AND ASTRONOMY.

The required studies in Mathematics include Geometry, with problems and exercises in Geometrical invention; Algebra, Plane and Spherical Trigonometry, with their application to problems in Surveying and Navigation, and Analytic Geometry. These are the mathematical studies of the first two years.

In the Junior year the study of the Calculus is elective.

Care is taken throughout that every principle shall receive a rigorous demonstration and that it be applied as far as is practicable. No principle is thoroughly learned by the student until he can apply it.

Elementary Astronomy is taught during the second term to all the members of the Junior Class. The study of Theoretical and Practical Astronomy, with the use of the instruments of the Observatory, is elective in the Senior year. It is desirable that those who intend to take elective Astronomy should take the elective Mathematics of the Junior year, that they may be prepared for lectures in the more advanced part of the course.

The DANIEL S. SCHANCK OBSERVATORY of Rutgers College is well equipped for the work of practical instruction, being supplied with a six and one-half inch refracting telescope with position micrometer, a meridian circle with four-inch object glass, a repeating circle, and other instruments. It is in telegraphic connection with other observatories.

The refined methods of measurement which the use of astronomical instruments requires, the discussion of results and the determination of errors, afford a means of mental training unsurpassed in value. Add to these the familiarity with spherical astronomy and with the constellations which this study imparts, and the advantage gained is a strong recommendation of its pursuit.

The Observatory was designed and is used not only for independent work, but for the *instruction of students in the theory and the use of astronomical instruments, and in practical observatory work.* It affords to students unusual facilities for learning how to use astronomical instruments.

PHYSICS.

This subject is taught by lectures, and copious additions are made to the matter of the text-book. Each point is demonstrated as far as possible; and the relations of the subject to ordinary natural phenomena, the processes of the industrial arts, etc., are pointed out. Students are encouraged to use the apparatus under the direction of the Professor in charge, and are trained to distinguish the essential from the casual conditions of experiments, as well as to infer from scientific data *no more* than is certain and warranted. The course begins with Mechanics and proceeds to Heat, Electricity, Sound and Light. A course in Physics, with especial reference to the study of Electricity, is this year added to the list of Senior Electives.

The apparatus is well fitted to illustrate all principl s, and such additions are made to it as the industrial applications of science demand.

Students in the Scientific Course, in the study of Physics, use the Paris Edition (French) of Ganot's larger treatise.

PHYSIOLOGY, ZOOLOGY AND BOTANY.

The course in this department begins with the Freshman year, in which Physiology, Zoology, and Botany are taught. The several text-books are in all cases supplemented by illustrated lectures, and in the study of Botany by field excursions for practical work in the analyzing and classification of botanical specimens. Class-room microscopes, and the larger solar microscope are continually used by the students in all these branches of study. In the Junior and Senior years, these subjects are still further elaborated and

studied in the sciences of Meteorology, Physical Geography, and Geology. The course of instruction is planned so as to bring these objects of every-day observation to the continued attention of the student, to teach him the principles of classification and systematic study, and to show their important relations to the successful conduct of the practical affairs of life. The extensive collections of minerals, fossils, geological and botanical specimens, shells, birds, etc., are arranged for study in the Museum of Geological Hall.

CHEMISTRY.

INORGANIC CHEMISTRY is taught by text-book and lectures. The course extends throughout the Sophomore year, three hours per week. The subject is introduced by experimental lectures on the volume composition of substances. Then follows a careful black-board drill on the writing of empirical and constitutional formulas of acids, bases and salts. The elements are next taken up in lectures, followed by recitations. In all cases the aim is to illustrate *every point* experimentally, thus giving the student ample experience in rigid experimental demonstration. The students are required to take full notes of the lectures, and to sketch the apparatus used in the experiments. These notes are afterwards copied and handed to the Professor for examination, criticism, and correction, training the student in accurate observation, and facility and brevity of expression. During the year, Stoichiometry, the Mathematics of Chemistry, is taught by black-board exercises.

ORGANIC CHEMISTRY is taught by lectures, recitations, and laboratory work. Beginning with the determination of the molecular weight of organic compounds, the student is led to examine the principles of substitution, valence and structure of organic compounds. Starting out from Methane, the various members of the Methane (monocarbon) series are derived. When this series has been completed, the Ethane series is taken up and gone through with in the same manner. Then follow the Butane and Propane series, etc. At the end of each series a recapitu-

lation of the typical reactions, and relations of each group is given.

The manner of treating the subject is substantially the same as that introduced by Prof. Hofmann, of Berlin. As the various substances are considered, their relations to vegetable and animal life and to agriculture are pointed out. Attention is also given to their practical applications, as in food, medicines, dyeing, and in manufactures generally. The lectures are accompanied by full experimental illustrations.

APPLIED CHEMISTRY.—The applications of Chemistry to the arts and manufactures are taught by lectures and text-book. Whenever it is practicable, the actual products are exhibited to the students, and the manufacturing processes reproduced in miniature. Attention is drawn to the scientific relations and connections between the various manufacturers. The great losses by imperfect methods of manufacture and by waste products are pointed out, and the student is taught to see the true economy of production. Illustrative of the lectures, visits are made to various manufacturing establishments, of which there are a number in and about New Brunswick, and an opportunity is given to see manufacturing operations in actual working.

ELECTIVE CHEMISTRY.—In the Junior and Senior years, students may elect a course in Analytical Chemistry with Laboratory Practice and Lectures. The experimental studies in this department have proved both attractive and profitable to those intending to devote themselves to Law or Medicine, or to business pursuits, as well as to men who intend to teach or to pursue lines of work immediately connected with chemistry and its applications.

The pupil begins by making the experiments in Eliot and Storer's Manual, thus acquiring by actual experience a familiarity with chemical substances and chemical phenomena.

The study of *Qualitative Analysis* is next taken up. The student makes the test, studies the reactions, and proceeds

rapidly from analysis of simple substances to the more complex. The method here followed of keeping notes of every step affords the student valuable practice in the three divisions of experimental science—Experiment, Observation and Inference. The theory of analysis is explained in the lectures and recitations on the subject. In connection with this subject, *Blowpipe Analysis* is also taught. *Quantitative Analysis* now follows. The student having learned the means of detecting the constituents of a substance, proceeds to the determination of their amount. Pure salts of known composition are analyzed at first, so that the results may be compared with the theoretical percentages. A sufficient degree of accuracy having been obtained, substances of unknown composition, as minerals, metals, ores, waters, urines, poisons, fertilizers, coals, etc., are analyzed. Having thus become thoroughly acquainted with the theory and practice of analytical chemistry, the student undertakes original experimental investigations in the various branches of pure and applied chemistry. Results obtained in investigations have been from time to time published in the scientific journals. During their entire course students are required to prepare samples of pure chemicals, and by this means such practice is given in manipulation as cannot be acquired in any other way.

RHETORIC.

ELOCUTION.—During the Freshman year, lectures are delivered on the general principles of Elocution, and a practical application of these principles is made by appropriate exercises in Declamation, in which the members of the class are carefully drilled. In addition to this there are exercises in Oratory by all the students, both in the class-room and the College Chapel. The Freshman and Sophomore classes speak selected pieces; the Juniors and Seniors are required to deliver original orations.

In the department of Rhetoric, begun during the Freshman year, an effort is made to teach the principles of

Composition, not as laid down in mechanical rules, but as springing from psychological laws and relations. Ideas presented in accordance with various mental requirements and influences are shown to contain the true philosophy of rational and effective discourse. Illustrative references to the Masterpieces of Oratory, and to other forms of the best English Classical Literature are freely given. Essays are required throughout the entire course.

EX TEMPORE SPEAKING.

The *Bussing Prizes* for excellence in *ex tempore* speaking, recently founded, are designed to cultivate the habit of presenting clearly, forcibly and accurately, and in a manner to convince an audience, the facts and ideas a student has upon themes with which he may fairly be supposed to be somewhat conversant. The repeated competitions for these prizes during the four years of the College course have already produced excellent effects.

METAPHYSICS AND LOGIC.

MENTAL PHILOSOPHY.—Porter's Elements of Intellectual Philosophy is used as a text-book during the first term and a part of the second term of the Junior year. The characteristic doctrines of the distinctive schools in Ancient and Modern Philosophy are presented in a course of lectures upon the representative thinkers of these schools. Much attention is paid to the most important philosophical and metaphysical questions now at issue among speculators. The results of recent critical discussions, together with comments, are interspersed with the daily recitations.

LOGIC.—Jevons-Hill's text-book is used. Special care is taken to enforce a practical application of logical formulas in the resolution of arguments, and the detection of sophistries. To this end illustrative examples are drawn from different authors and much oral instruction is given.

HISTORY, POLITICAL ECONOMY AND CONSTITUTIONAL LAW.

HISTORY.—The study of History is begun in the Sophomore year with the use of a text-book giving the outlines of ancient history, followed by instruction in modern history, tracing the formation and growth of modern states. In this part of the course, a knowledge of historical geography is essential, and to this end a constant use of the historical atlas is required of the student. From time to time and increasingly as the class becomes familiar with the facts of history, and especially with the general relations of events, topics are assigned for special study, the results of such study by different members of the class and the various historical narratives which have been consulted are compared, the purposes and characteristics of historians pointed out, and instruction is given on the sources of history and historical methods.

The first term of the Junior year is given to a study of the English Constitution. In the third term Guizot's History of Civilization in Europe is used as a text-book. In lectures before the class, attention is directed to the action and reciprocal influences of political forces. The subjects assigned for essays are intended to stimulate a desire to understand the abstract and universal ideas which underlie the causes of events and which give to history its continuity and unity.

For students of the Senior year and for graduates, the Professor of History has formed a class in which the methods of study will be those of the so-called historical "Seminary." The following may serve as examples of the nature of the subjects proposed for the investigation in this class:

Methods of historical inquiry; fields open to the American student for original historical research; the nature of local government in England and America; comparative study of local institutions in the United States; the English Government in its theory and methods.

POLITICAL ECONOMY.—Instruction is given in Political Economy to the Senior Class in the first term by means of text-books, lectures and conversational discussions. The student is required to be familiar with the leading principles of this subject as presented by the author whose work is used as a text-book, and is then encouraged to study economical problems of the present time from the historical and, so far as may be, absolutely impartial standpoint.

CONSTITUTIONAL LAW.—The Senior Class will pursue the study of Constitutional Law in the second term. With the study of the present status of Constitutional Law, a constant reference to the reports of decisions in the more important cases will serve to develop a familiarity with the processes of constitutional growth. Subjects involving constitutional questions will be assigned for the writing of essays.

During the same term the study of the History of the Constitution of the United States is pursued by the Senior Class of the Scientific Department.

INTERNATIONAL LAW.—The work of a French or German author will be made the basis of an exposition of the principles of International Law, while at the same time the acknowledged superiority of American and English authorities will be kept in view. The subject is taken up in the second term of the Senior year.

ARCHITECTURE.

ARCHITECTURE is taught during a part of the second and all the third term of the Senior year, and is brilliantly illustrated by stereopticon pictures, showing the successive orders and styles which have prevailed among different peoples and at different times.

PHYSICAL DEVELOPMENT—GYMNASIUM.

The Athletic Association, composed of students of Rutgers College, possesses large and commodious grounds.

The excellent *Gymnasium* in Suydam Hall, three minutes' walk from the college buildings, by the courtesy of the Theological Seminary of the Reformed Church, is open to the daily use of the students of Rutgers.

A thoroughly qualified Instructor is always in attendance, and all students of the two lower classes are required to take systematic exercise in the Gymnasium, under his direction and supervision. The health of the under-graduates has materially improved since this systematic training has been undertaken; and it is expected that hereafter all classes will do regular work in the gymnasium.

SCIENTIFIC DEPARTMENT.

RUTGERS SCIENTIFIC SCHOOL.

BY ACT OF THE LEGISLATURE CONSTITUTED THE STATE COLLEGE FOR THE PROMOTION OF AGRICULTURE AND THE MECHANIC ARTS.

BOARD OF VISITORS.

(APPOINTED BY THE GOVERNOR.)

FIRST CONGRESSIONAL DISTRICT.

	Residences.	*Terms Expire.*
DAVID A. SHREVE, ESQ.,	Haddonfield,	1888.
I. M. SMALLEY, ESQ.,	Roadstown,	1888.

SECOND CONGRESSIONAL DISTRICT.

HON. WILLIAM PARRY,	Cinnaminson.	1887.
WILLIAM S. TAYLOR, ESQ.,	Burlington,	1888.

THIRD CONGRESSIONAL DISTRICT.

JOHN V. N. WILLIS, ESQ.,	Marlboro,	1888.
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FOURTH CONGRESSIONAL DISTRICT.

JOHN DE MOTT, ESQ.,	Middlebush,	1887.
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SIXTH CONGRESSIONAL DISTRICT.

HON. GEORGE H. HARTFORD,	Orange,	1888.
WM. M. FORCE, ESQ.,	Newark,	1885.

SEVENTH CONGRESSIONAL DISTRICT.

ABRAHAM W. DURYEE, ESQ.,	New Durham,	1888.
JAMES STEVENS, ESQ.,	Jersey City,	1888.

OFFICERS:

HON. WILLIAM PARRY, *Chairman.*
GEORGE H. COOK, *Secretary.*

1. Conditions of Admission.

Every applicant for admission must be at least sixteen years of age, and must submit to the President proper testimonials of a good moral character. If an applicant for a State Scholarship, he must also present to the President a certificate of appointment from the County Superintendent.

Examinations for admission will be held on the same days as for the Classical Department, viz: on the Monday and Tuesday preceding Commencement, beginning at 10 o'clock A. M. on Monday, in the President's office. Applicants for admission may also be examined on Tuesday, September 20, at the same hour and place; but all students who can conveniently do so, are advised to be present in June.

From certain preparatory schools of established reputation students are admitted without examination, upon the Principal's certificate that they have completed the required amount of work and are prepared to enter college. Blanks for such certificates will be furnished upon application to the Librarian, Mr. I. S. Upson, or to the President of the College.

Students may enter an advanced class either at the beginning of the College year or at other times, on condition that they sustain a satisfactory examination both on the preliminary studies and on those already passed over by the class which they propose to enter.

Provision is made for such students as wish to devote themselves to special subjects, if they are prepared to study profitably with the regular classes in those subjects.

The following are the subjects in which those who wish to enter the Freshman Class of the Scientific Department are examined. Since all are such as can be acquired in our best common schools, *it is insisted that the preparation in them shall be thorough and complete.* The general regulations as to conditions and their removal will be the same as those which apply to the classical course, and may be found on page 13.

1. ARITHMETIC.—Fundamental Operations; Common and Decimal Fractions; Denominate Numbers, including the Metric System; Percentage, including Interest and Discount; Proportion; Square and Cube Root.

2. ALGEBRA to Series; as much as is contained in Loomis' Treatise on Algebra, Wentworth's Complete Algebra, or Wells' University Algebra.

3. PLANE GEOMETRY.—The *whole* of Plane Geometry will be required.

4. ENGLISH GRAMMAR—including Spelling.

5. DESCRIPTIVE GEOGRAPHY.

6. PHYSICAL GEOGRAPHY.

7. HISTORY OF THE UNITED STATES.*

8. Such a knowledge of Elementary PHYSICS and CHEMISTRY as may be obtained from Peck's Ganot's Physics, or Wells' Natural Philosophy, and Valentine's Twenty Lessons in Chemistry, or Cooley's or Steele's Chemistry, is required for admission.

9. AN ESSAY will also be required, to be written at the examination, on some subject drawn from books announced in advance. The books to be read with this in view will be those named for the English essay in the Classical Department, on page 16.

In preparing the student for this course, it is recommended that he be drilled thoroughly in Arithmetic, as a clear understanding of its simple elementary and practical principles is essential to a good Mathematician. His preparation in Algebra to Series should be *very thorough.* In addition to understanding the PRINCIPLES of the science, he must fix them in his memory, and learn their bearing and utility, and for this reason he should pay great attention to the solution of practical examples. What is needed is ability to solve ordinary examples with facility and to explain them thoroughly.

* For particulars see pages 17 and 18.

Attention is specially called to the Metric System of Weights and Measures, a practical knowledge of which is indispensable, since it is *used* in the class-room.

2. Course of Study.

Three distinct courses of study are included in the schedule which follows:

I. A Course in Civil Engineering and Mechanics.
II. A Course in Chemistry and Agriculture.
III. A Special Course in Agriculture.

During the first year the studies of the two full courses are the same, and are designed to furnish a suitable introduction to the pursuit of the higher branches in either.

Engineering Course.—During the last three years, the students in this course are instructed in Railroad Curves, Descriptive Geometry, Analytic Geometry, Differential and Integral Calculus, Analytic Mechanics, Civil Engineering, Bridge-Building and Geodesy; and have daily practice in Draughting, with Exercises and Problems in Geometrical Constructions, in Descriptive Geometry, Topographical, Mechanical and Architectural Drawing, and in Graphical Statics.

Students in this course, and in the Chemical and Agricultural Course, in addition to the special and technical studies of their course, pursue such studies in English, Rhetoric, Elocution, French or German, Metaphysics and Moral Philosophy and the Natural Sciences as are calculated to make them broadly educated and intelligent citizens, and not mere narrow specialists.

The course of study for the first year in this department is arranged so as to be complete in itself. It is especially designed to meet the wants of those who cannot take the entire four years' course, but who desire to fit themselves for Land Surveying. Students leaving at this period of the course, receive from the Faculty a certificate of their attainments.

CHEMICAL AND AGRICULTURAL COURSE.—During the last three years, the students in this course are instructed in General, Experimental, Theoretical, Organic and Applied Chemistry, Stoichiometry, Theory and Practice of Agriculture, Determinative Mineralogy, Blowpipe Analysis, and Analytical Chemistry, including the Analysis of Ores, Minerals, Coals, Waters, Technological Products, Soils, Fertilizers, Agricultural Products and Foods, Poisons, Urine and Animal Products. Instruction is also given in Spectrum Analysis, and Microscopical Examination. The course of study depends, to some extent, upon the student's future pursuit in life.

The special course in Agriculture occupies two years. In the remaining studies, the courses in Engineering, Chemistry and Agriculture are the same.

Partial Students are received, and allowed to take part in the above courses, provided their previous education is sufficient; and particular provision is made for them, especially in the Laboratory, in the application of science to Agriculture, and in Mathematics, Surveying and Draughting.

SPECIAL PROVISION IS ALSO MADE FOR STUDENTS WHO DESIRE, AFTER COMPLETING THE REGULAR COURSE OF STUDY, TO TAKE POST-GRADUATE STUDIES.

In connection with the instruction in Agriculture in this department, the Trustees maintain an extensive model farm, designed to illustrate the principles of agriculture.

MILITARY TACTICS.—In accordance with the requirements of the law, provision is made in this department for the study of Military Tactics.

ANNUAL REPORT OF THE SCIENTIFIC DEPARTMENT.

More extended information about the studies and courses in the Scientific School will be found in the Annual Report of the New Jersey State Scientific School to the Legislature of New Jersey, which will be sent to any address on application.

3. Organization.

This department of the College has been designated by the Legislature of New Jersey, in accordance with the law of Congress,

THE STATE COLLEGE FOR THE PROMOTION OF AGRICULTURE AND THE MECHANIC ARTS.

FREE SCHOLARSHIPS.

Under the law, a certain number of students from the State of New Jersey are received into this department of the College, and educated *free of expense for tuition.* This law also provides for the appointment by the Governor of a Board of Visitors, two from each Congressional District, who possess general powers of supervision and control. The State pupils are admitted to free scholarships on the recommendation of the Superintendent of Schools in each county and on passing the required examinations. These free scholarships are distributed among the counties in proportion to their population, as follows:

STATE SCHOLARSHIPS.

Atlantic,	1	Middlesex,	2
Bergen,	1	Monmouth,	2
Burlington,	3	Morris,	2
Camden,	2	Ocean,	1
Cape May,	1	Passaic,	2
Cumberland,	1	Salem,	1
Essex,	6	Somerset,	1
Gloucester,	1	Sussex,	1
Hudson,	6	Union,	2
Hunterdon,	1	Warren,	1
Mercer,	2		40

Notice of examinations to be held in the several districts to fill vacancies which may exist in these Scholarships from time to time will be given by the State Superintendent of Education to the several County Superintendents.

Letters to the President or the Secretary of the Faculty, inquiring about vacancies, will receive careful attention.

COURSES OF STUDY.

Freshman Year.

Exercises during the year in Composition and Declamation.
Bible-Class, Sabbath morning.

FIRST TERM.

1. French.—5 hours a week.—Whitney's Practical French Grammar, Part I.
2. Mathematics.—5 hours a week.—Algebra completed; Geometry, Wentworth.
3. Physiology.—2 hours a week.—Dalton's; Lectures.
4. Rhetoric.—2 hours a week.—Kellogg; Lectures.
5. English Literature.—2 hours a week.
6. Draughting.—2 afternoons each week.—Practical Plane Geometry.

SECOND TERM.

1. French.—5 hours a week.—Keetel's Analytical French Reader; Grammar, Part II.
2. Mathematics.—5 hours a week.—Geometry completed; Trigonometry, Plane and Spherical, Wells.
3. Comparative Zoölogy.—2 hours a week.—Orton.
4. English Literature.—3 hours a week.—History of the English Language; Study of Words, Trench.
5. Draughting.—2 afternoons each week.—Coloring, Topographical Signs, etc.

THIRD TERM.

1. French.—5 hours a week.—Classic Authors.
2. Mathematics.—5 hours a week.—Surveying, Murray.
3. Botany.—3 hours a week.—Gray's; Lectures; Excursions.
4. English Literature.—2 hours a week.—English Authors.
5. Draughting.—2 afternoons each week.—Mapping, with sections; etc.; Field work.

Sophomore Year.

Course in Civil Engineering and Mechanics.

Exercises during the year in Composition and Declamation.
Bible-Class, Sabbath morning.

First Term.

1. Railroad Curves.—3 hours a week.—Henck's Field Book.
2. Descriptive Geometry.—3 hours a week.—Church.
3. Chemistry.—3 hours a week.—Barker; Lectures, with Experiments; Stoichiometry.
4. Physics, from a French Text-Book.—2 hours a week.—Ganot's Treatise on Physics, latest Paris edition.
5. History.—3 hours a week.—Fisher's Outlines; Ancient History.
6. English Literature.—2 hours a week.
7. Draughting.—2 afternoons each week.—Practical Geometry, Solid; Free-hand Drawing, Shades and Shadows.

Second Term.

1. Descriptive Geometry.—3 hours a week.—Church; Construction of Problems.
2. Analytic Geometry.—3 hours a week.—Bowser.
3. Chemistry.—3 hours a week.—Barker; Lectures, with Experiments.
4. Physics.—French Text Book.—2 hours a week.
5. History.—3 hours a week.—Fisher's Outlines.
6. English Literature.—1 hour a week.
7. Draughting.—2 afternoons each week.—Intersection of Surfaces, etc.

Third Term.

1. Analytic Geometry.—3 hours a week.—Bowser, completed.
2. Shades, Shadows and Perspective.—3 hours a week.—Church; Construction of Problems.
3. Chemistry.—3 hours a week.—Barker; Lectures, with experiments.
4. Physics.—French Text-Book.—2 hours a week.
5. History.—2 hours a week.—Fisher's Outlines.
6. English Literature.—2 hours a week.
7. Draughting.—2 afternoons in the week.—Linear Perspective, etc.

Sophomore Year.

Course in Chemistry and Agriculture.

Exercises during the year in Composition and Declamation.
Bible-Class, Sabbath morning.

First Term.

1. Experimental Chemistry.—6 hours a week, first two months.—Remsen.
2. Qualitative Analysis.—6 hours a week last month of term.—Fresenius; Lectures; Laboratory Practice.
3. Chemistry.—3 hours a week.—Barker; Lectures, with Experiments.
4. Physics.—2 hours a week.—Ganot's Treatise on Physics, latest edition, in the French.
5. History.—3 hours a week.—Fisher's Outlines. Ancient History.
6. English Literature.—2 hours a week.
7. Draughting.—Practical Geometry, Solid; Free-Hand Drawing, Shades and Shadows.

Second Term.

1. Qualitative Analysis.—6 hours a week.—Fresenius; Lectures; Laboratory Practice.
2. Chemistry.—3 hours a week.—Barker; Lectures, with Experiments.
3. Physics.—French Text-Book.—2 hours a week.—Lectures and Experiments.
4. History.—3 hours a week.—Fisher's Outlines.
5. English Literature.—1 hour a week.
6. Draughting.—Intersection of Surfaces, etc.

Third Term.

1. Qualitative Analysis.—6 hours a week, $\frac{3}{4}$ of term.—Fresenius; Lectures; Laboratory Practice.
2. Chemistry.—3 hours a week.—Barker; Lectures, with Experiments.
3. Stoichiometry.—6 hours a week, $\frac{1}{4}$ of term.
4. Physics.—French Text-Book.—2 hours a week.
5. History.—2 hours a week.—Fisher's Outlines.
6. English Literature.—2 hours a week.
7. Draughting.—Linear Perspective, etc.

Junior Year.

Course in Civil Engineering and Mechanics.

Exercises during the year in Composition and Original Declamation.
Bible-Class, Sabbath morning.

FIRST TERM.

1. Mental Philosophy.—4 hours a week.—Porter's Elements of Intellectual Philosophy; Lectures; Essays.
2. Differential Calculus.—5 hours a week.—Bowser.
3. Physics.—2 hours a week.—Ganot; French Text-Book.
4. German.—3 hours a week.—Whitney's Brief German Grammar.
5. History.—2 hours a week.—The English Constitution.
6. Draughting.

SECOND TERM.

1. German.—3 hours a week.—Wackernagel's Deutsches Lesebuch; German Method, Part II.
2. Differential Calculus.—5 hours a week.—Completed; Integral Calculus.—Bowser.
3. Physics.—2 hours a week.—Ganot; French Text-book.
4. Logic.—3 hours a week.—Jevons-Hill's Text-book, and Lectures.
5. Astronomy.—3 hours a week.—Newcomb and Holden.
6. Draughting.—Shading, etc.

THIRD TERM.

1. Integral Calculus.—5 hours a week.—Completed.
2. History of Civilization.—5 hours a week.—Guizot, French Text.
3. German.—4 hours a week.—Classic Authors, and a weekly Lecture upon German Literature.
4. Physics.—2 hours a week.—Ganot, French Text.
5. Draughting.—Construction.

Junior Year.

Course in Chemistry and Agriculture.

Exercises during the year in Original Composition and Declamation.
Bible-Class, Sabbath morning.

FIRST TERM.

1. Mental Philosophy.—4 hours a week.—Porter's Elements of Intellectual Philosophy; Lectures.

2. QUANTITATIVE ANALYSIS.—3 hours a week.—Fresenius; Cairns; Lectures; Laboratory Practice.
3. CHEMISTRY.—2 hours a week.—Cooke's Chemical Philosophy.
4. PHYSICS.—2 hours a week.—Ganot; Lectures, with Experiments.
5. GERMAN.—3 hours a week.—Whitney's Brief German Grammar.
6. HISTORY.—2 hours a week.—The English Constitution.
7. DRAUGHTING.

SECOND TERM.

1. MENTAL PHILOSOPHY AND LOGIC.—3 hours a week.
2. QUANTITATIVE ANALYSIS.—1 hour a week.—Fresenius; Cairns; Lectures; Laboratory Practice.
3. CHEMISTRY.—4 hours a week.—Cooke's Chemical Philosophy.
4. AGRICULTURE.—Lectures.
5. PHYSICS.—2 hours a week.—Ganot; Lectures, with Experiments.
6. GERMAN.—3 hours a week.—German Reader.
7. ASTRONOMY.—3 hours a week—Newcomb and Holden.
8. DRAUGHTING.—Shading, etc.

THIRD TERM.

1. QUANTITATIVE ANALYSIS.—1 hour a week.—Fresenius, Cairns; Lectures; Laboratory Practice.
2. CHEMISTRY.—4 hours a week.—Cooke's Chemical Philosophy.
3. PHYSICS.—2 hours a week.—Ganot, French Text-Book.
4. AGRICULTURE.—Vegetable Physiology.
5. HISTORY OF CIVILIZATION.—5 hours a week.—Guizot, French Text.
6. GERMAN.—4 hours a week.—Classic Authors, and a lecture each week upon German Literature.
7. DRAUGHTING.—Construction.

SENIOR YEAR.

COURSE OF CIVIL ENGINEERING AND MECHANICS.

Exercises during the year in Composition and Original Declamation.
Bible-Class, Sabbath morning.

FIRST TERM.

1. MORAL PHILOSOPHY.—4 hours a week.—Calderwood; Lectures.
2. MECHANICS.—4 hours a week.—Bowser.
3. ENGINEERING.—3 hours a week.—Mahan.
4. POLITICAL ECONOMY.—4 hours a week.
5. DRAUGHTING.—Machinery and Architecture.

SECOND TERM.

1. POLITICAL ETHICS AND DUTIES OF CITIZENSHIP.—4 hours a week.—Lieber, Woolsey and Lectures.

2. Engineering.—4 hours a week.—Mahan.
3. Mechanics.—3 hours a week.—Bowser; Bridge-building, Wood.
4. Geology.—2 hours a week, latter half term.—Dana; Lectures.
5. Constitution of United States.—2 hours a week.
6. Architecture.—2 hours a week, half the term.—Lectures, illustrated by Stereopticon Views.
7. Draughting.

THIRD TERM.

1. Practical Ethics.—4 hours a week.—Lectures.
2. Bridge Building.—4 hours a week.—Wood; Geodesy; Lectures.
3. Hydromechanics.—3 hours a week.—Bowser.
4. Geology.—4 hours a week.—Dana; Lectures.
5. Draughting.—Thesis.

Senior Year.

Course in Chemistry and Agriculture.

Exercises during the year in Composition and Original Declamation.
Bible-Class, Sabbath morning.

FIRST TERM.

1. Moral Philosophy.—4 hours a week.—Calderwood's Hand-book; Lectures.
2. Applied Chemistry.—4 hours a week.—Wagner's Technology; Lectures.
3. Principles of Agriculture.—Lectures; Care and Feeding of Domestic Animals; Armsby's Cattle Feeding.
4. Quantitative Analysis.—3 hours a week.—Fresenius; Cairns; Lectures; Laboratory Practice.
5. Political Economy.—4 hours a week.
6. Draughting.
7. Visits to Manufactories.

SECOND TERM.

1. Political Ethics and Duties of Citizenship.—4 hours a week.—Lieber, Woolsey and Lectures.
2. Applied Chemistry.—3 hours a week.—Wagner's Technology; Lectures.
3. Agriculture.—Its Methods and Products; Johnson's "How Crops Grow."
4. Quantitative Analysis.—1 hour a week.—Fresenius, Cairns; Lectures; Laboratory Practice.
5. Organic Chemistry.—3 hours a week.—Remsen and Pinner-Austen.
6. Constitution of the United States.—2 hours a week.
7. Architecture.—2 hours a week, first half of term.

8. Geology.—2 hours a week, latter half of term.—Dana; Lectures.
9. Determinative Mineralogy.—Dana.
10. Visits to Manufactories.

THIRD TERM.

1. Practical Ethics.—4 hours a week.—Lectures.
2. Applied Chemistry.—3 hours a week.—Wagner's Technology; Lectures.
3. Agriculture.—Lectures; Johnson's "How Crops Feed."
4. Geology.—4 hours a week.—Dana; Lectures.
5. Quantitative Analysis.—1 hour a week.—Fresenius, Cairns; Lectures; Laboratory Practice.
6. Organic Chemistry.—2 hours a week.—Remsen and Pinner-Austen.
7. Draughting.
8. Thesis.
9. Assaying.—1 hour a week.—Ricketts.
10. Visits to Manufactories.

SPECIAL COURSE IN AGRICULTURE.

FIRST YEAR.

First Term.—1. Algebra. 2. Geometrical Problems. 3. Inorganic Chemistry. 4. Physiology. 5. Analytical Chemistry.

Second Term.—1. Geometry. 2. Coloring and Topographical Drawing. 2. Analytical Chemistry. 4. Book-Keeping. 5. Zoology.

Third Term.—1. Trigonometry. 2. Mapping. 3. Analytical Chemistry. 4. Botany. 5. Farm Accounts.

SECOND YEAR.

First Term.—1. Surveying. 2. Projections. 3. Physics. 4. Care and Feeding of Domestic Animals. 5. Systematic Agriculture. 6. Analytical Chemistry.

Second Term.—1. Navigation and Nautical Astronomy. 2. Architectural Drawing. 3. Physics. 4. Geology. 5. How Crops Grow.

Third Term.—1. Leveling and Road Making. 2. Machine Drawing. 3. Meteorology. 4. Botany. 5. How Crops Feed.

Composition and Declamation throughout the course.

The hours of lectures or recitations are either three or four each day; besides work in the Chemical Laboratory, and in the Draughting Room.

Students who pass their regular examinations in the above subjects will, at the close of their course, receive certificates of their attainments. And at the end of two or more years further, if they shall have pursued practical agriculture on a farm, and shall then pass satisfactory examinations in prescribed subjects on Agricultural principles and practice before a Board of Examiners of the Scientific School, they shall receive Diplomas in Agriculture.

EXAMINATIONS.

The classes in both departments are examined at the close of each term. These examinations are partly oral and partly written, and have an important bearing upon the standing of the student in his class.

Unexpected examinations at irregular intervals are held at the discretion of each instructor. The object of these examinations is to cultivate the habit of considering the relations of each day's work to what has been done before, and to stimulate effort on the part of each student to gain a comprehensive knowledge of the subjects studied.

At the end of the first and third terms, the examinations of the classes of the Scientific section are held in the presence of the Board of Visitors, who then make their semi-annual visits to the Institution.

At the end of the third term each member of the Graduating Class of the Scientific section is required to present a thesis on some scientific subject, a copy of which is written out upon paper suitable for binding, and deposited in the College Library.

The final examination of the Graduating Classes is held four weeks before Commencement, from which time they are subject to such duties as are required for their preparation for Commencement.

GRADUATION.

To all members of the Graduating Class of the Classical Department, in full standing, the Trustees grant diplomas conferring the Academic degree of Bachelor of Arts.

To all members of the Graduating Class of the Scientific Department, in full standing, the Trustees grant diplomas conferring the Academic degree of Bachelor of Science.

To all members of the Graduating Class, in either Department, who have satisfactorily pursued special courses of study, a certificate is granted stating the studies pursued and the attainments made.

To those students who have pursued satisfactorily the studies of the first two years of the Scientific Course, and who desire to leave at that time, a special certificate is granted by the Faculty.

The following are the regulations in regard to the graduating exercises at Commencement:

1. The privilege of speaking at Commencement shall be open without distinction to the Classical and Scientific Sections of the Graduating Class.

2. Until 1887, the graduating honors shall be as follows:

FIRST HONOR—Latin Salutatory.
SECOND HONOR—English Salutatory.
THIRD HONOR—Philosophical Oration.
FOURTH HONOR—Scientific Oration.

If the first honor be awarded to a member of the Scientific Section of the Graduating Class, he shall deliver a German Salutatory.

3. Until 1887, the *Valedictory* shall be regarded as a *rhetorical honor only*, and shall be awarded to the best writer and speaker in his class (to be determined by his grade in composition and elocution during the Junior and Senior

years), provided that he has been a member of his class for two years, and has a general grade in scholarship among the best two-thirds.

On and after Commencement Day, 1887, the *Valedictory Oration* shall be the First Honor, and shall be pronounced by that member of the Graduating Class who shall have received the highest grade from the combined marks in all the subjects of the course; and on and after the same day, the Honor now known as the Valedictory shall be styled the Rhetorical Honor.

4. Eleven other speakers shall be chosen, of whom six shall be chosen by grade in scholarship, provided that in their grade in composition and elocution during their Junior and Senior years they are among the best two-thirds; and five shall be chosen by grade in composition and elocution during their Junior and Senior years, provided that in their general grade in scholarship they are among the best two-thirds.

5. Should the foregoing regulation fail to secure eleven speakers, the number wanting shall be appointed in the order of the rank resulting from a combination of the grades in scholarship, and composition and elocution.

DEGREES AND POST-GRADUATE STUDIES.

The degrees of A. M. and M. S. are no longer given "in course," but only for work done.

The Faculty will recommend for the degree of Master of Arts or Master of Science candidates otherwise properly qualified, who, after taking the appropriate Bachelor's degree,

1. Shall pursue for at least one year at Rutgers College a course of liberal and non-professional study, approved by the Faculty, and shall, beside the term examinations, pass a thorough examination on that course and present a thesis on some topic connected with it; or,

2. Who, not less than three years after taking the Bachelor's degree at Rutgers College, shall make application for

the Master's degree, presenting at the same time a certificate of graduation from a Theological Seminary, a Law School or a Medical School, or of admission to the practice of Law or Medicine ; or,

3. Satisfactory evidence of successful labor in that field of education or literature which may have been permanently chosen ; or,

4. In case of Bachelor of Science, satisfactory evidence of successful professional work actually done and advanced professional studies prosecuted.

The degrees of Ph.D. and D.Sc., may be conferred upon resident graduates of the College who shall pursue for two years prescribed courses of study under the direction of the Faculty.

The conditions will be made known on application.

The degree of Civil Engineer is a professional one, and is, on application, conferred upon graduates of the College who have taken the degree of Bachelor of Science, and subsequently have passed three years in the practice and study of engineering, with results satisfactory to the Faculty.

The applicant is required to furnish a statement of the work upon which he has been engaged, and to present a Thesis or discussion of some engineering work which he has done. The application and Thesis must be presented to the Secretary of the Faculty at least one month before commencement.

REGULATIONS.

Morning prayers are attended in the College Chapel each morning, except Saturday and Sunday, at 8:40 o'clock.

The recitation hours extend from 9 o'clock A. M. to 12 M., or 1 o'clock P. M., during five days of the week.

A Bible-Class is held Sabbath morning in the College Chapel at 9:30 o'clock. All students are required to attend it.

A sermon is preached every Sabbath morning in the College Chapel at 10:30 o'clock. Students are required to be present.

They are expected, also, to attend public worship in the afternoon or evening, at such place as their parents or guardians may direct.

No student is allowed to leave the city during term time without permission from his Division Officer.

Recitations are marked on a scale of 100, and the average standing of each student is made up at the end of each term, and sent to his parent or guardian. A mark at examination counts as much as one-third of the term's work up to the time of examination.

If the grade of a student in any term falls below 60 per centum of the maximum in one of his studies, he is conditioned in that study, and must be re-examined therein.

If the average of any student in any study at any time falls below 60 per centum of the maximum grade, his case must be acted on as the Faculty shall deem necessary.

If any student's average grade in any term falls below 60 per centum of the maximum, he loses his standing in his class, and is required to fall back a year in the course. If his work is not satisfactory after a month's trial here, he is dismissed from College.

With all classes after June, 1887, marks given in ELECTIVE work will not enter into the computation of grade; and the only official record of work done in Electives will be the announcement, at the end of each term, in each student's report, that he has "failed" or "passed," or "passed with honor," in each of his elective courses.

If any student is found to be notably deficient in his daily recitations, or at the examination in any of his studies, his case is reported to the Faculty, and such action by way of discipline is taken as may be deemed necessary.

No student can be promoted to an advanced class until all his deficiencies are made up; and if he fails to make up all his deficiencies before the opening of the College year, he is required to go back a year in his course. Examinations for making up such deficiencies are held *on the day before the opening of the Autumn Session in September, at* 10 *A. M.*

COLLEGE EXPENSES.

FEES.

Tuition, per annum, - - - - - - - - -	$75 00
Incidentals—Janitor, Fuel, &c., per annum, - -	8 00
Reading Room, per annum, - - - - - -	2 00
Admission Fee, - - - - - - - - - -	5 00
Graduation Fee, - - - - - - - - - -	7 50
Analytical Chemistry, extra, per term, - - - -	15 00

Of the above expenses, the admission fees are payable, on entrance, to the College Treasurer; the incidental expenses are payable at the beginning of the first term, in September; of the tuition fees, one-third, viz., $25, is payable within ten days after the beginning of each term. All checks should be made payable to the Treasurer of Rutgers College.

Students in Analytical Chemistry are charged $15 additional per term, for chemicals and use of Laboratory, which amount must be paid within ten days after the beginning of the term. They are also expected to provide themselves, at their own expense, with the necessary sets of apparatus, which may be obtained from the regular apparatus dealers, or from the Laboratory Supplies department. These sets are retained through the year, but at the end of it, if the owners do not wish to keep them, they will be purchased at a fair price. If proper care has been exer-

cised, a small discount only (about 10 per cent.) from the original cost will be made. All breakage will be charged in full.

BOARD.

Board, with furnished room, can be obtained in New Brunswick at the present time for $4 to $7 per week; board without rooms for $3 to $5 per week. Students having the ministry in view may obtain rooms in Hertzog Hall, in the Theological Seminary, free of charge. These rooms are heated and lighted.

The Faculty are empowered to pass such regulations relative to the number of boarders in each house as they think proper; and students shall board only at such places as are approved by them.

By combining in clubs, students are able to reduce somewhat their expense for board.

Free scholarships and pecuniary assistance may be given to young men of approved character and ability, whose family circumstances are such as to make this assistance necessary. No deserving student who has shown perseverance and capacity is allowed to give up his course for lack of assistance.

BENEFICIARY AID.

1. VAN BENSCHOTEN FUND.

This fund, the gift of the Rev. Elias Van Benschoten, in 1814, amounting to $20,813, was given in trust jointly to the General Synod of the Reformed Church and the Trustees of Rutgers College, to aid in the education of indigent students for the ministry. The students who enjoy the benefits of this fund are appointed by the Trustees of

the College on the nomination of the General Synod of the Reformed Church, and receive $150 annually.

2. Knox Fund.

This fund, consisting of $2,000, was given by Mrs. Rebecca Knox, of Philadelphia, in 1815, to the Trustees of Rutgers College, the income from it to be expended for the support of one student in the Theological Seminary.

3. W. H. Smock Fund.

William H. Smock, of Marlboro, N. J., left by his will, to the Trustees of Rutgers College, the sum of $500, to be invested as a fund, the interest of which should be used to aid in the education of young men for the ministry. This legacy was received in 1859, and has been since that time duly employed for the purpose named.

4. Mandeville Fund.

In 1865, the Trustees of Rutgers College received from the executor of the will of William Mandeville, of New York City, the sum of $2,000; said sum to be invested, and the income thereof to be applied to the support of a theological student in the College.

5. Voorhees Fund.

Abraham Voorhees, of Franklin Park, N. J., bequeathed by his will $26,000 to the Trustees of Rutgers College, the income of which is to be expended in aiding worthy young men who are candidates for the ministry, while pursuing their studies in Rutgers College. A grant of $200 per annum is made to the students thus receiving aid.

6. Free State Scholarships.

The law of the State of New Jersey granting to the Scientific Department of Rutgers College the Agricultural

College Endowment provides for the education of forty State students free of expense for tuition. These scholarships are distributed among the counties in proportion to their population, and the appointments to fill vacancies are made by the County Superintendent. The appointment gives the right to a course of instruction of four years in Rutgers Scientific School, on successfully passing the entrance examinations.

7. Board of Education.

The Board of Education of the Reformed Church grants aid to young men preparing for the ministry in the denomination. The conditions are that the persons receiving aid shall have been members of some Evangelical Church one year, and at the time members of some Reformed Church. The aid may be obtained either while in College or in the Theological Seminary.

At present the amount given is from $150 to $200 per annum. Information may be had by addressing the Secretary of the Board, 34 Vesey St., New York.

8. Rooms for Students.

Such rooms in Peter Hertzog Hall as may not be required for the use of the students of the Theological Seminary, are allowed to be occupied by the students of the College and Grammar School who have the ministry in view, and on the same conditions as the members of the Theological Seminary, *i. e.*, free of charge.

PRIZES AND HONORS.

In every case where it is expected that a prize will be awarded for work done, it is distinctly announced that unless in the opinion of the examiners the work submitted is of such excellence as to merit a prize or prizes, no prize will be awarded.

All prizes and honors are open equally to members of the Classical and Scientific Departments, except in cases where prizes are specifically limited to one department by the donor. Each competitor for a prize must sign a written declaration that the essay or other work offered by him is his original and unaided work. The essays are to be written on paper of a prescribed kind, and the successful essay is to be deposited in the College Library, before the writer is entitled to the prize. They are as follows:

1. Suydam Prize for Composition.

This prize, the gift of James Suydam, Esq., is a gold medal of the value of thirty dollars, or that sum in money, and is to be given to the member of the Senior Class who shall write the best English Composition on the subject assigned to the class by the Professor of Rhetoric. Competitors must hand in their compositions on or before April 18th. The student to whom the prize is awarded must copy his composition upon paper furnished by the College, and present it for preservation in the Library before he can receive the prize.

Subject for 1886: "The Position and Influence of Dugald Stewart as a Philosopher." The prize was awarded to John DeWitt, Jr., of New Brunswick.

Subject for 1887: "Shakespeare's Mental Philosophy."

2. Suydam Prize in Natural Science.

This prize, the gift of James Suydam, Esq., is a gold medal of the value of thirty dollars, or that sum in money, and is to be awarded to the member of the Senior Class who shall have made the greatest attainments in Natural Science. The examination is upon all the subjects of Natural Science in the College course, and is conducted by the Professors in those subjects. The questions and answers are required to be written.

The prize was in 1886 awarded to George Edwin Talmage, of New Brunswick.

3. Brodhead Classical Prize.

This prize is the gift of Rev. Dr. Jacob Brodhead and his son, J. Romeyn Brodhead, LL.D. It is the interest on $500, *i. e.*, thirty dollars, to be given to the best Senior Classical scholar on the following conditions:

First. "That those who offer themselves as candidates for it shall be subjected to a special examination, at a time to be fixed by the Faculty near to the close of the Senior year."

Second. "That the subject of the examination be a passage or play of some Classical author (not included in the College programme of studies), to be selected by the Classical Professors, and to be announced at least one month before the time fixed for the examination."

Third. "A subject for an essay shall be announced at the same time, and the essay shall be given in on the day of examination."

Fourth. "Both the examination and the essay shall be taken into account in the adjudication of the prize. A law copy of the essay of the Prize man shall be handed in by him before the medal is put into his hands, to be preserved among the archives of College."

Subject for examination for 1886: "Plato's Timaeus;" and for essay, to be written in Greek: "Did the Greek

Natural Philosophers believe the Earth to be a Sphere?" The prize was awarded to GEORGE EDWIN TALMAGE, of New Brunswick.

For 1887 the subject will be: "Cicero De Legibus"; and for essay: "How far Modern Law and Politics have been affected by the Stoic Philosophy acting through the later Roman Law?" This is to be written in Latin. A second prize of twenty-five dollars is offered by the Professor of the Department.

4. BRADLEY MATHEMATICAL PRIZE.

This prize is given by Hon. Joseph P. Bradley, LL.D., and consists of a valuable Mathematical work, which is to be bestowed on the student of the Senior Class who shall present the best solution of a set of Mathematical problems to be proposed to the class by the Professor of Mathematics before the close of the second term. The prize was, in 1886, awarded to GEORGE ANTHONY VIEHMAN, of New Brunswick.

5. MYRON W. SMITH PRIZE.

These prizes were founded by Lyndon A. Smith, M. D., of Newark, in the name of his son, Adjutant Myron W. Smith, who was a graduate of the College, and who gave his life in the late war to the cause of his country. They consist of the interest of $500, proportionately appropriated to two medals, one of gold and the other of silver, which are to be awarded respectively to the best and second best speakers of the Sophomore Class. Only those students who shall have pursued, in the College, the regular studies of the classical or a full scientific course from the beginning of the Freshman year, shall be allowed to contend for these prizes.

The competition for these medals shall take place before a committee of the Faculty, when the best and second best speakers shall be selected, to whom the medals shall be

awarded, and six others shall receive honorable mention in their order of excellence. The medals shall be presented at Commencement.

In 1886, the first of these prizes was awarded to FRANK L. MAYHAM, of Newark; the second prize to SHERMAN G. PITT, of Crary's Mills, N. Y.

6. TUNIS QUICK PRIZE IN SPELLING AND ENGLISH GRAMMAR.

This prize, the gift of P. Vanderbilt Spader, Esq., of New Brunswick, is the income of $300, at 6 per centum, and is to be presented to that member of the Freshman Class, Classical or Scientific, who shall pass the best examination in Spelling and English Grammar.

The examination is to be conducted in writing by the Professor of English Literature, at as early a day as convenient in the second College term, and under such regulations as the Faculty may from time to time establish.

The prize may be withheld from any and all papers offered, either for want of merit or for failure of proper competition. In case the prize be not awarded in any year, it is to be offered one year later to the members of the same class, on the same conditions as at first.

All regulations as to time, manner and conditions of awarding the prize are subject to change by the Board of Trustees.

It was awarded, in 1886-7, to JAMES HARVEY KEELING, of Utica, N. Y.

7. PETER SPADER PRIZES IN MODERN HISTORY.

These prizes, the gift of P. Vanderbilt Spader, Esq., are two in number, the income of $400 and $300, respectively, at 6 per centum, and are to be awarded to those members of the Sophomore Class, Classical or Scientific, who shall present the best essays on some subject in Modern History, selected by the Professor of History, with the approval of the Faculty.

The subject is to be announced at the close of the Freshman year, and the competing essays are to be handed in on or before the last Monday in June of the Sophomore year.

The committee annually appointed by the Faculty may decline to award these prizes, or either of them, for want of merit in the essays, or for failure of proper competition. In case the prizes be not awarded in any year, they are to be offered one year later to the members of the same class, on the same conditions as at first.

All regulations as to time, manner and conditions of awarding the prizes are subject to change by the Board of Trustees.

Subject for 1886: "A Review of the works of Francis Parkman." The first prize was awarded to HARMON BAY NIVER, of Ancram Lead Mines, N. Y.; the second, to WILLIAM JAMES LANSLEY, of Elizabeth.

Subject for 1887: "The Various Motives to Colonization of the earliest settlers of the United States."

8. APPLETON MEMORIAL PRIZE IN MORAL PHILOSOPHY.

This prize was founded by a gift of $500, from the Rev. Samuel E. Appleton, D.D., in the name of his mother, Mrs. Elizabeth Appleton. It consists of thirty dollars, the interest of the above sum, and will be given "to the member of the Senior Class who shall pass the best examination in Moral Philosophy."

Subject for 1886: A written and an oral examination upon Calderwood's Handbook of Moral Philosophy. The prize was awarded to JOHN DEWITT, Jr., of New Brunswick.

Subject for 1887: The same.

9. WILLIAM WILSON PRIZE IN MENTAL PHILOSOPHY.

This prize consists of twenty-five dollars, given by the Rev. F. F. Wilson, and the Rev. P. Q. Wilson, in honor of

their father, Captain William Wilson, of Asbury Park, N. J. It will be open to competition for students in both the Classical and Scientific Sections who are pursuing the study of Mental Philosophy, and will be bestowed on the one who shall pass the best examination on some work assigned by the Professor of Metaphysics.

Work for 1886: Berkley's Principles of Knowledge, Dr. Krauth's Edition, pages 72–122, and 193–281.

Prize equally divided between WILLIAM SAMUEL BISHOP, of East Orange, and WILLIAM PIERSON MERRILL, of New Brunswick.

Work for 1887, the same as for 1886.

10. WM. H. VAN DOREN PRIZE FOR THE BEST ESSAY ON CHRISTIAN MISSIONS.

This prize consists of twenty dollars, the gift of the Rev. William H. Van Doren, D.D. It is open to competition for members of the Senior and Junior classes in both sections; and for members of the Theological Seminary.

In 1886, it was awarded to ASA WYNKOOP, of Catskill, N. Y., of the class of 1887.

11. JUNIOR EXHIBITION.

Eight members of the Junior class are chosen each year, in equal numbers from the Peithessophian and Philoclean Literary Societies, who deliver original speeches at an exhibition held on the Tuesday evening preceding Commencement. The selection is made by a committee of three persons of whom one is chosen by each Society and a third by the Faculty, and is based upon relative excellence as writers and speakers.

This prize, the gift, in 1886, of Ralph N. Perlee, Esq., was awarded to ASA WYNKOOP, of Catskill, N. Y.

12. HART PRIZE IN ENGLISH LITERATURE.

A prize of twenty-five dollars is offered to the members of the Sophomore Class for the best essay upon a subject in Literature; the theme is assigned by the Professor of that

Department, and the prize is awarded by a committee appointed by him.

Subject for 1886: "Walter Scott as a Novelist." This prize was awarded to MELVIN DAY BRANDOW, of New Brunswick.

Subject for 1887: "Goldsmith."

13. THE BUSSING PRIZES FOR EX TEMPORE SPEAKING.

Mrs. Ann Bussing, of New York City, has given to the College $1,000, the income of which (fifty dollars per annum) is to be expended each year for books, which shall be selected by the President of the College, and given as follows: The First Prize, of thirty dollars, to that member of the Senior Class who shall prove himself to be the best extemporaneous speaker; the Second Prize, twenty dollars, to the second best extemporaneous speaker, of the Senior Class. The prizes are to be awarded by the Faculty of the College, or by a committee whom they shall name, and shall be awarded after a public debate to be held in the latter part of the college year. In awarding the prizes, "strict attention shall be given to logical and forcible presentation of thought, full and accurate information as to matters of fact, and grace and effectiveness in delivery." For the sake of training students in the clear expression of intelligent thought upon matters of public interest, each class has an exercise in *ex tempore* speaking twice in each term. The subject is announced to the class, and, after five minutes for thought, the members of the class discuss the subject or debate the question before a committee.

The First Prize was awarded, in 1886, to JOHN DEWITT, Jr., of New Brunswick; the Second to WARREN HARDENBERGH DIXON, of Jersey City.

14. VAN VECHTEN PRIZE—ESSAY ON CHRISTIAN MISSIONS.

A. V. W. Van Vechten, Esq., of New York, has founded, in honor of his mother, the late Louisa Van Vechten, and his father, Rev. Dr. Samuel Van Vechten, a prize of sixty

dollars, by the gift of $1,000, the prize "to be given annually to that student of Rutgers College who shall be adjudged by the Faculty of the Theological Seminary of the Reformed Church of America, at New Brunswick, to have presented an article, original with himself, and the best submitted—the most conclusive and inspiriting to strengthen faith in and love for Foreign Missions." Essays to be presented on or before May 1st of each year.

The prize, in 1886, was awarded to WILLIAM I. CHAMBERLAIN, of New Brunswick.

16. HONORABLE MENTION FOR WORK OUTSIDE THE COURSE DONE WITHOUT REFERENCE TO A PRIZE.

For the encouragement of independent reading and study and original investigation, under the direction of the Faculty, honorable mention is made of students who give evidence of thoroughness in such work, and pass a satisfactory examination.

Mr. WILLIAM SHIELDS MYERS, of the class of 1889, receives honorable mention for work done and examinations passed on Mignet's *Revolution Francaise*, Vol. I., and Moliere's *L'Avare*—500 pages in all.

LIBRARY AND MUSEUM.

1. LIBRARIES.

The Library of the College is open for consultation during each term, as follows: On Mondays, Tuesdays, Wednesdays, Thursdays and Fridays, from 8 to 8:40 A. M., and from 12 M. to 12:30 P. M., and from 2 P. M. to 4:30 P. M.; on Saturdays from 9 A. M. to 12:30 P. M. Students are allowed free access to the books, and are encouraged to become fa-

miliar with the proper methods of using a library for literary work. More than 1500 volumes have been added to the library (a large number of them by the use of the income of the PRUYN FUND of $10,000, the gift of the late Robert C. Pruyn, of Albany, N. Y.,) during the past year, and no effort will be spared to make it what the institution requires. Donations to this object, either in money or books, are earnestly solicited.

A "Subject-catalogue" and an "Author's Catalogue" have been prepared during the last year, on the most approved methods.

By the gift of a permanent fund of $1,000 from James Suydam, Esq., supplemented by gifts from other sources, the Library is supplied with the leading learned periodical publications in the various departments.

By the courtesy of the Theological Seminary of the Reformed Church, the SAGE LIBRARY of more than 30,000 volumes is opened to the students of Rutgers for consultation; and under certain limitations books are drawn from it as well. It is within three minutes' walk of the College campus.

2. MUSEUM AND APPARATUS.

The Trustees solicit contributions from the friends of the College to the collections of the Museum. It is their wish to increase greatly the present valuable collections by additions in all departments. Donations of specimens illustrating Geology, Mineralogy, Natural History, Numismatics and Antiquities, and the Industrial Arts, are earnestly requested. Ample rooms are provided in the new Geological Hall for the proper preservation and display of such specimens. By the kindness of numerous friends, suitable cases have been provided to receive the collections which the College already possess, and they are now being arranged as rapidly as circumstances will allow.

The apparatus of the College for illustrating the various branches of Science is extensive and serviceable. It has been obtained as the wants of the classes demanded, and

comprises many recent additions to the Chemical and Philosophical apparatus. The students in Analytical Chemistry are provided with the requisite facilities for making analyses. The arrangement for these departments in the buildings recently erected are of the most ample and convenient description.

REGISTER.

1. Sophomore Orators (Class of 1888).

Frank L. Mayham,	Newark.
Sherman G. Pitt,	Crary's Mills, N. Y.

The following are named in the order of their appointment according to merit:

Melvin D. Brandow,	New Brunswick.
Oscar M. Voorhees,	Bedminster.
William B. Tomkins,	East Orange.
Frederick W. Parker,	New Brunswick.
William J. Lansley,	Elizabeth.
John H. Voorhees,	Middlebush.

2. Junior Exhibition.

ORATORS FOR 1886.

Peithessophian Society.		*Philoclean Society.*	
W. S. Bishop,	East Orange.	S. D. B. Demarest,	New Brunswick.
T. W. Challen,	New Brunswick.	W. P. Merrill,	New Brunswick.
B. M. Tremper,	Kingston, N. Y.	H. H. Palmer, Jr.,	New Brunswick.
A. Wynkoop,	Catskill, N. Y.	F. A. Pattison,	Metuchen.

3 Graduating Exercises, June.

HONORS.

John DeWitt, Jr., New Brunswick,	*Latin Salutatory*,	1st Honor.
George Edwin Talmage, New Brunswick,	*English Salutatory*,	2d Honor.

ELMORE DEWITT, Walkill, N. Y., *Philosophical Oration*, 3d Honor.
LEWIS BIRGE CHAMBERLAIN, New Brunswick, *Scientific Oration*, 4th Honor.
JOHN DEWITT, Jr., New Brunswick, *Valedictory*, Rhetorical Honor.

ORATIONS.

CHARLES B. LUDLOW, New Brunswick, JOHN M. FARLEY, Fort Plain, N. Y.
JOHN H. PORTER, Bordentown AARON L. STILLWELL, Somerville.
WILLIAM HOCKMAN, Red Bank. JOSEPH B. REYNOLDS, Bordentown.
CLARENCE M. DUBOIS, Bridgeton. PETER STILLWELL, White House.
CHARLES S. CATHCART, New Brunswick. DEWITT V. D. REILEY, New Brunsw'k.

MASTER'S ORATION.

HENRY JUDD WARD, - - - - Richfield Springs, N. Y.

4. PRIZES AWARDED, 1886.

GENERAL PRIZES.

Van Vechten Prize for Essay on Missions, - ASA WYNKOOP.
Van Doren Prize for Essay on Foreign Missions, - - - - - - - WM. I. CHAMBERLAIN.

SENIOR PRIZES.

Appleton Prize for Moral Philosophy, - JOHN DEWITT, Jr.
Suydam Prize for Composition, - - - JOHN DEWITT, Jr.
Suydam Prize for Natural Science, - - GEORGE EDWIN TALMAGE.
Bradley Mathematical Prize, - - - GEORGE ANTHONY VIEHMAN.
Geology Prize, 1st, - - - - - - GEORGE EDWIN TALMAGE.
Geology Prize, 2d, - - - - - - PETER STILLWELL.
Bowser Prize for Best Thesis, - - JOHN HOWARD PORTER.
Bussing Prize for Extemporaneous Debate, 1st, JOHN DEWITT, Jr.
Bussing Prize for Extemporaneous Debate, 2d, WARREN H. DIXON.
Best Chemical Thesis, - - - - - CHARLES S. CATHCART.

JUNIOR PRIZES.

Wilson Prize for Mental Philosophy, - { WILLIAM S. BISHOP. / WILLIAM P. MERRILL.
Perlee Junior Orator Prize, - - - - ASA WYNKOOP.

SOPHOMORE PRIZES.

Myron W. Smith Prize for Declamation, 1st, FRANK L. MAYHAM.
Myron W. Smith Prize for Declamation, 2d, SHERMAN G. PITT.
Hart English Literature Prize, - - - MELVIN D. BRANDOW.

Spader Prize for Modern History, 1st, - - HARMON B. NIVER.
Spader Prize for Modern History, 2d, WILLIAM J. LANSLEY.

FRESHMEN PRIZES.

Quick Prize for Grammar and Spelling, - JAMES H. KEELING.
Sloan Prizes for best preparation, (awarded September, 1886).

First Prize, JACOB FREDERICK BERG; prepared at the Grammar School, New Brunswick, E. T. TOMLINSON, A.M., Head-Master.

Second Prize, ALEXANDER VANWAGONER; prepared at the Grammar School, New Brunswick, E. T. TOMLINSON, A.M., Head-Master.

5. CLASS DAY EXERCISES.

IN THE CHAPEL.

ORATION. - - - - -	JOHN DEWITT, JR.,	New Brunswick.
POEM, - - - - -	THOMAS A. STODDART,	Rahway.
CLASS HISTORY, - - -	GEORGE A. VIEHMAN,	New Brunswick.
CLASS PROPHECY, - -	AARON L. STILLWELL,	Somerville.
PRESENTATION OF CLASS MEMENTOES, - - -	DEWITT V. REILEY,	New Brunswick.
PRESENTATION OF CLASS MEMORIAL, - - -	LEWIS B. CHAMBERLAIN,	New Brunswick.
ADDRESS TO UNDERGRADUATES,	JOHN M. FARLEY,	Fort Plain, N. Y.

ON THE CAMPUS.

IVY ORATION, - - -	EDWARD W. DEWEY,	Fort Plain, N. Y.
IVY ODE, - - - - -	ELMORE DEWITT,	Walkill, N. Y.
PIPE ORATION, - - -	CLARENCE M. DUBOIS,	Bridgeton.
ADDRESS TO THE PRESIDENT,	PETER STILLWELL,	White House.

6. ALUMNI ASSOCIATION.

OFFICERS FOR THE YEAR 1886-87.

REV. JOHN M. JANSEN, Class of '48, - - - - -	President.
HON. WOODBRIDGE STRONG, Class of '47, - -	Vice-Presidents.
REV. EZRA F. MUNDY, Class of '52, - - - -	
HON. J. NEWTON VOORHEES, Class of '56, - - -	
REV. JAMES S. N. DEMAREST, Class of '72, - - -	Treasurer.
JOHN S. VOORHEES, Esq., Class of '76, - - -	Secretary.
IRVING S. UPSON, A.M., Class of '81, . - - -	Biographer.

ALAN H. STRONG, ESQ., Class of '74. - - -	Inspectors of Election of Alumni Trustees.
HARRY NEILSON, ESQ., Class of '73, - - -	
T. P. HILL, ESQ., Class of '83, - - - -	

ORATOR FOR 1887.

REV. J. G. VAN SLYKE, D.D., Class of '66, - -	Primarius.
HON. GARRET A. HOBART, Class of '63. - - -	Secundus.

VEDDER LECTURERS.

REV. JOHN H. OERTER, D.D., 1887, - . -	New York City.
REV. JACOB COOPER, D.D., D.C.L., 1888, - -	New Brunswick.

CATALOGUES.

Former students of the College, whether graduates or not, are earnestly requested to keep the College informed of any change in their address or occupation, of works published, offices held, etc., both to facilitate the sending of the annual catalogue, and to furnish material for general catalogues, when printed. Catalogues of the College, etc., will be sent to alumni or friends of the College who send to the Secretary their addresses, for this purpose.

It is desired to secure for the library a complete set of all the publications issued by the College or relating to it, or written or compiled by any one in connection with it, whether periodical or occasional. A complete collection of *Rutgersensia* would be of great value to the College and its friends

QUINQUENNIAL (GENERAL) CATALOGUE.

Acting under a recent resolution of the Board of Trustees, the Librarian of the College, IRVING S. UPSON, A.M., has within the last year collected materials for a General Catalogue, which was published last April and includes the names of all the alumni and students of the college to the class of 1885.

Alumni and friends are requested to notify the Librarian of the death of any of the alumni, of changes of residence, etc., and of any errors, however slight, that may have been detected in the General Catalogue of the Alumni.

RUTGERS COLLEGE GRAMMAR SCHOOL.

E. T. TOMLINSON, A.M., HEAD-MASTER.

[NUMBER OF STUDENTS LAST YEAR, ABOUT 150.]

This School, which is under the control of the Board of Trustees and is in intimate relation with the College, affords excellent facilities for preparing boys to enter the classical and scientific departments of the College. Special care is taken to drill the pupils thoroughly in the principles of Mathematics, the Languages, Natural Sciences and kindred subjects. Its work, however, is not restricted to candidates for College. It has courses of study adapted to fit young men for business life, or to give them a general education as good as the best academies offer. The friends of the College, who have sons or wards to educate, will do well to examine carefully into its merits. Full information will be given upon application to the Head-Master, E. T. TOMLINSON, A.M., New Brunswick, N. J.

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CATALOGUE

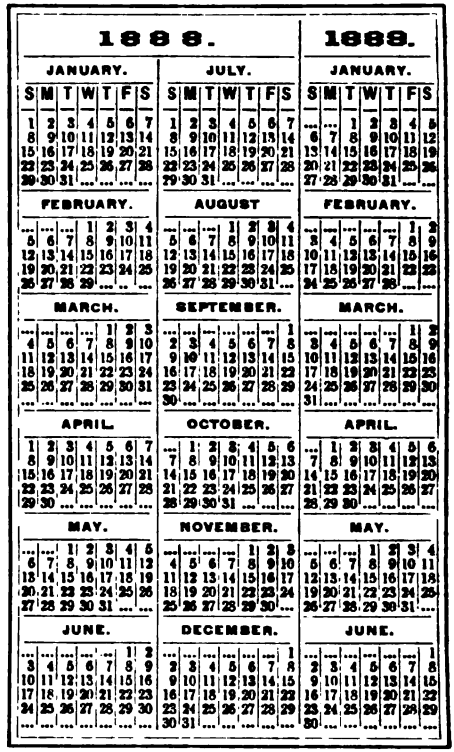
OF

RUTGERS COLLEGE,

AT

NEW BRUNSWICK, N. J.

1887-'88.



1888.

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THE

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OF

RUTGERS COLLEGE

AT

NEW BRUNSWICK, N. J.

1887-8.

FOUNDED A. D. 1770.

TRENTON, N. J.:
THE JOHN L. MURPHY PUBLISHING CO., PRINTERS.
1888.

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CATALOGUE

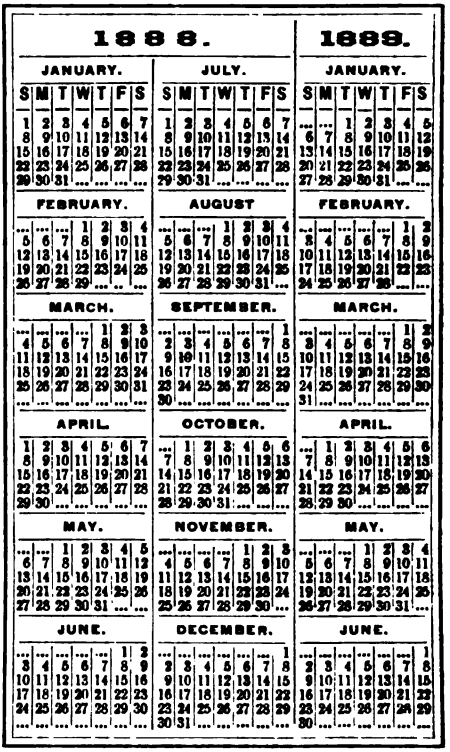
OF

RUTGERS COLLEGE,

AT

NEW BRUNSWICK, N. J.

1887-'88.



1888.

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CATALOGUE

OF THE

OFFICERS AND STUDENTS

OF

RUTGERS COLLEGE

AT

NEW BRUNSWICK, N. J.

1887-8.

FOUNDED A. D. 1770.

TRENTON, N. J.:
THE JOHN L. MURPHY PUBLISHING CO., PRINTERS.
1888.

CALENDAR.

1887.

DECEMBER 21,	Wednesday: First Session ends. Vacation.

1888.

JANUARY 5,	Thursday: Second Session begins.
JANUARY 26,	Day of Prayer for Colleges.
APRIL 3,	Tuesday: Second Session ends. Vacation.
APRIL 11,	Wednesday: Third Session begins.
JUNE 17,	Sunday: Baccalaureate Sermon.
JUNE 18–19,	Monday (10 A. M.) and Tuesday: Examinations for admission.
JUNE 19,	Tuesday: Meeting of Alumni; Exercises of the Literary Societies; Junior Exhibition in the Evening.
JUNE 20,	Wednesday: Commencement. Vacation begins.
SEPTEMBER 18,	Tuesday, 10 A. M.: Examinations for admission.
SEPTEMBER 18,	Tuesday, 10 A. M.: Examinations for the removal of June Conditions. All conditioned students must be present.
SEPTEMBER 19,	Wednesday: First Session begins; recitations.
DECEMBER 19,	Wednesday: First Session ends. Vacation.

1889.

JANUARY 3,	Thursday: Second Session begins.

TRUSTEES—1887–8.

EX-OFFICIO.

HIS EXCELLENCY ROBERT S. GREEN, ... ELIZABETH.
Governor of the State of New Jersey.

HON. MERCER BEASLEY, LL.D., ... TRENTON.
Chief Justice of the State of New Jersey.

HON. JOHN P. STOCKTON, ... TRENTON.
Attorney-General of the State of New Jersey.

BY ELECTION.

Names.	*Address.*	*Date of Election.*
MERRILL EDWARDS GATES, LL.D., L.H.D., *President of the College.*	NEW BRUNSWICK,	March 7, 1882.
REV. T. E. VERMILYE, D.D., LL.D.,	New York City, 15 West 56th St.	July 24, 1849.
HON. JOHN HOPPER,	Paterson,	July 22, 1851.
MAURICE E. VIELE, ESQ.,	Albany, N. Y.,	July 27, 1853.
REV. DAVID D. DEMAREST, D.D.,	New Brunswick,	April 13, 1858.
HON. JOSEPH P. BRADLEY, LL.D.,	Washington, D. C.,	June 29, 1859.
REV. FRANCIS M. KIP, D.D.,	Tompkinsville, S. I.,	Oct. 16, 1860.
HENRY L. JANEWAY, ESQ.,	New Brunswick,	April 8, 1862.
REV. GARRET C. SCHANCK,	Marlboro,	April 11, 1866.
STAFFORD R. W. HEATH, ESQ.,	Newark,	April 11, 1866.
REV. TALBOT W. CHAMBERS, D.D.,	New York City, 70 West 36th St.	June 17, 1868.
REV. JOACHIM ELMENDORF, D.D.,	New York, 61 East 123d St.	April 14, 1869.
REV. PAUL D. VAN CLEEF, D.D.,	Jersey City,	April 14, 1869.
SAMUEL SLOAN, ESQ.,	New York City, 26 Exchange Place.	June 20, 1871.
HON. GEORGE C. LUDLOW,	New Brunswick,	June 17, 1873.
HON. WILLIAM A. NEWELL,	Olympia, W. T.,	June 17, 1873.
REV. ISAAC S. HARTLEY, D.D.,	Utica, N. Y.,	June 17, 1873.

Names.	*Address.*	*Date of Election.*
Rev. William Ormiston, D.D.,	New York City, 180 West End Ave.	June 20, 1876.
Rev. John Gaston, D.D.,	Passaic,	June 20, 1876.
Hon. Henry W. Bookstaver,	New York City, 14 East 67th St.	June 20, 1876.
Robert F. Ballantine, Esq.,	Newark,	June 20, 1876.
Rev. William Rankin Duryee, D.D.,	Jersey City,	March 5, 1878.
Rev. William J. R. Taylor, D.D.,	Newark,	June 18, 1878.
Rev. Abraham R. Van Nest, D. D.,	New York City,	Oct. 29, 1878.
William Clark, Esq.,	Newark,	Oct. 29, 1878.
Hon. George H. Sharpe,	Kingston, N. Y.,	March 4, 1879.
David Bingham, Esq.,	East Orange,	March 7, 1882.
George C. Churchill, Esq.,	Utica, N. Y.,	June 19, 1883.
Henry R. Baldwin, M.D.,	New Brunswick,	June 17, 1884.
Frederick Frelinghuysen, Esq.,	Newark,	June 16, 1885.
Ernest J. Miller, Esq.,	Albany, N. Y.,	June 16, 1885.
Hon. Jonathan Dixon,	Jersey City,	June 22, 1886.
James Neilson, Esq.,	New Brunswick,	June 22, 1886.
Rev. Roderick Terry, D.D.,	New York City, 160 Madison Ave.	June 22, 1886.
Tunis G. Bergen, Ph.D.,	Brooklyn, N. Y.,	Oct. 25, 1887.
Rev. Edward B. Coe, D.D.,	New York, 42 West 52d St.	Oct. 25, 1887.
Elbert B. Monroe, Esq.,	Southport, Conn.,	Oct. 25, 1887.
Rev. John B. Drury, D.D.,	New Brunswick,	Oct. 25, 1887.

Rev. DAVID D. DEMAREST, D.D., . . . New Brunswick.

Secretary of the Board.

JOHN C. ELMENDORF, Esq., ... New Brunswick.

Treasurer.

Office—39 Albany Street.

STATED MEETINGS OF THE BOARD.

Last Tuesday in October, at 2 o'clock P. M.

First Tuesday in March, at 2 o'clock P. M.

Tuesday before Commencement, at 10 o'clock A. M.

James Thomas, *Janitor.*

FACULTY.

MERRILL EDWARDS GATES, PH.D., LL.D., L.H.D.,
PRESIDENT,

THEODORE FRELINGHUYSEN *Professor of Moral Philosophy.*
President's House, College Campus.

GEORGE H. COOK, LL.D.,
VICE-PRESIDENT,
Professor of Geology and Agriculture.
Bleecker Place.

REV. T. SANDFORD DOOLITTLE, D.D.,
COLLEGIATE CHURCH *Professor of Rhetoric, Logic and Mental Philosophy.*
Seminary Place.

REV. JACOB COOPER, D.D., D.C.L.,
Professor of the Greek Language and Literature.
108 George Street.

REV. CARL MEYER, D.D.,
Professor of Modern Languages.
145 Easton Avenue, Corner Huntington Street.

FRANCIS CUYLER VAN DYCK, A.M.,
Professor of Physics and Experimental Mechanics.
84 College Avenue.

EDWARD A. BOWSER, C.E., LL.D.,
Professor of Mathematics and Engineering.
Main College Building.

GEORGE BENJAMIN MERRIMAN, A.M.,
Professor of Mathematics and Astronomy.
282 Hamilton Street.

PETER TOWNSEND AUSTEN, PH.D., F.C.S.,
Professor of General and Applied Chemistry.
88 Easton Avenue.

REV. CHARLES EDWARD HART, D.D.,
Professor of the English Language and Literature.
88 Livingston Avenue.

AUSTIN SCOTT, PH.D.,
VOORHEES *Professor of History, Political Economy, and Constitutional Law.*
24 Livingston Avenue.

FRANCIS AUGUSTUS WILBER, M.S.,
Adjunct Professor of Analytical Chemistry.
79 Easton Avenue.

*LOUIS BEVIER, PH.D.,
Adjunct Professor of Modern Languages.
145 College Avenue.

*EDGAR S. SHUMWAY, A.M.,
Professor of the Latin Language and Literature.

JOHN THOMAS HONEYCUTT, 1st Lieutenant 1st U. S. Artillery,
Professor of Military Science and Tactics.
32 Union Street.

ALFRED A. TITSWORTH, M.S., C.E.,
Professor of Graphics and Mathematics.
22 East Fifth Street, Plainfield, N. J.

IRVING STRONG UPSON, A.M.,
Librarian.
152 Paterson Street.

The names of the Faculty after that of the President are arranged according to seniority of appointment.

*During the current College year, Professor Shumway is traveling in Europe, studying Archæology, Epigraphy, etc., and Professor Bevier is acting Professor of Latin.

CATALOGUE OF STUDENTS

FOR THE YEAR BEGINNING SEPTEMBER 21, 1887.

GRADUATE STUDENTS.

Names.	*College.*	*Residences.*	*Rooms.*
PENNINGTON RANNEY, A.B., Chemistry.	Princeton,	Elizabeth,	Elizabeth.
LOUIS A. VOORHEES, A.B., Chemistry.	Rutgers,	New Brunswick,	111 Carroll Pl.
HAROLD TAIT, B.S., Chemistry.	Rutgers,	New Brunswick,	Metuchen.
HENRY HOLMES PALMER, JR., A.B., Electricity.	Rutgers,	New Brunswick,	College Ave.
CHARLES H. VANNIER, M.S., Chemistry.	Rutgers,	Succasuna,	64 Paterson St.
HARRY ATWATER SMITH, B.S., Chemistry.	Rutgers,	Somerville,	114 College Ave.

SENIOR CLASS.

Classical Section.

Names.	*Residences.*	*Rooms.*
Wm. Armitage Beardslee,	West Troy, N. Y.,	29 Hertzog Hall.
Melvin Day Brandow,	Hornellsville, N. Y.,	Chi Psi House.
Fred Hutchinson Cook,	Bound Brook,	114 Bayard St.
Frank Lawyer Mayham,	Belleville,	419 George St.
Harmon Bay Niver,	Ancram Lead Mines, N. Y.,	215 New St.
Frederick William Parker,	New Brunswick,	18 College Ave.
Sherman Grant Pitt,	Crary's Mills, N. Y.,	38 College Ave.
Herbert Giles Sharpley,	Pella, Iowa,	29 Hertzog Hall.
John Howard Voorhees,	Middlebush,	Middlebush.
Oscar McMurtrie Voorhees,	Bedminster,	51 Hertzog Hall.
Ferdinand Schenck Wilson,	Millstone,	Millstone.
Charles Sterling Wyckoff,	Woodhaven, L. I.,	38 College Ave.

Scientific Section.

Names.	*Residences.*	*Rooms.*
Edwin Moore Alden,	Metuchen,	Metuchen.
Richard Donne Divine,	Elizabeth,	Elizabeth.
William James Lansley,	Elizabeth,	Elizabeth.
Henry W. Lockett,	Cranford,	Cranford.
Isaac Wright Reynolds,	Montrose, N. Y.,	83 New St.
Edward Austin Waldron,	New Brunswick,	417 George St.

JUNIOR CLASS.

Classical Section.

Names.	*Residences.*	*Rooms.*
Harry Randolph Anderson,	Rahway,	Rahway.
Charles Best Benson,	Hudson, N. Y.,	Delta Phi House.
Arthur J. Collier,	Coxsackie, N. Y.,	92 Albany St.
Byron Cummings,	West Bangor, N. Y.,	86 Bayard St.
John Ten Eyck De Witt,	Wallkill, N. Y.,	12 Hertzog Hall.
George Van Wagenen Duryee,	Jersey City,	38 College Ave.
William Watson Hallock,	Brooklyn, N. Y.,	81 Easton Ave.
Isaac McMunn Holly,	New York City,	95 Bayard St.
Charles Edwin Ingersoll,	New Brunswick,	81 Easton Ave.
James Harvey Keeling,	Utica, N. Y.,	17 Hertzog Hall.
George Armstrong Liggett,	Rahway,	Rahway.
Harvey Loser,	Upper Red Hook, N. Y.,	307 George St.
Charles Maar,	Poughkeepsie, N. Y.,	17 Hertzog Hall.
Kumakichiro Oishi,	Tokio, Japan,	105 Albany St.
Henry Livingston Rupert,	Newark, N. Y.,	27 Albany St.
Sam Corle Schenck,	Lambertville,	419 George St.
Clarence Goodwin Scudder,	Vellore, India,	307 George St.
Charles Judson Scudder,	Saugerties, N. Y.,	Delta Phi House.
George Joseph Steinmetz, Jr.,	Cedar Grove,	95 Bayard St.
George Boice Thompson,	Colt's Neck,	192 George St.
Maurice J. Thompson,	New Brunswick,	137 Somerset St.
Elias Wortman Thompson,	Readington,	31 Hertzog Hall.

Scientific Section.

Names.	*Residences.*	*Rooms.*
Albert Cornelius Arend,	Trenton,	Trenton.
Harold Diossy Force,	Newark,	155 Bayard St.
Richard Thurston Greene,	Elizabeth,	Elizabeth.
Edward Howell,	Morristown,	307 George St.
George Morris,	New Monmouth,	203 Neilson St.
William Shields Myers,	Sidney, N. Y.,	92 Albany St.
John Osborn Polak,	Brooklyn, N. Y.,	340 George St.
Frank Halsey Skinner,	Belleville,	Delta Phi House.
Joseph Scott Stillwell,	Lexington, Ky.,	College Ave.
John Phillips Street,	Beverly,	152 Paterson St.

SOPHOMORE CLASS.

Classical Section.

Names.	*Residences.*	*Rooms.*
Frederick Austin Aikin,	Warsaw, N. Y.,	215 New St.
Howard Wilbur Ennis,	Albany, N. Y.,	19 Hertzog Hall.
Garrett J. Folmsbee,	So. Shodack, N. Y.,	Chi Psi House.
James Fountain,	Matawan,	35 Hertzog Hall.
George Washington Glasier,	Warsaw, N. Y.,	215 New St.
Gerard Hallock,	Linden,	Linden.
Horace Sterling Hawes,	Richmond, Va.,	Delta Phi House.
Irving Hoagland,	Franklin Park,	122 Bayard St.
Arthur Frederick Mabon,	New Brunswick,	Seminary Pl.
Warren Ackerman Mayou,	Marysville, Kansas,	64 College Ave.
Stephen Ward Righter,	Boonton,	Chi Psi House.
Warren Redcliffe Schenck,	New Brunswick,	N. Brunswick.
Henry Johnston Scudder,	Saugerties, N. Y.,	21 Hertzog Hall.
Arthur Spaulding,	Spottswood,	Chi Psi House.
Elias Brown Van Arsdale,	Paterson,	44 Hertzog Hall.
John S. Van Orden,	Spring Valley, N. Y.,	21 Hertzog Hall.
Washington Irving Van Riper,	Paterson,	215 New St.
Alexander Van Wagoner,	Paterson,	379 George St.
Charles William Van Zee,	Pamrapo,	35 Hertzog Hall.
Ralph Spencer Voorhees,	Bedminster,	College Farm.
William Davis Ward,	Closter,	43 Hertzog Hall.
Erastmus Ames Whitenack,	Bedminster,	198 New St.

Scientific Section.

Names.	*Residences.*	*Rooms.*
Elliot Clayton,	Freehold,	16 George St.
Charles Divine,	Elizabeth,	Elizabeth.
Howard Elting,	Gardiner, N. Y.	Delta Phi House.
Theodore Jackson Gillies,	Plainfield,	Plainfield.
Howard Goff,	East Creek,	27 Albany St.
Samuel Hobart Lockett,	Cranford,	Cranford.
Malcolm Cameron Ludlam,	South Dennis,	Chi Psi House.
Warren M. Osborn,	Point Pleasant,	27 Albany St.
John Alfred Potter,	Rahway,	Rahway.
Louis William Stotesbury,	Matteawan, N. Y.,	64 College Ave.

FRESHMAN CLASS.

Classical Section.

Names.	*Residences.*	*Rooms.*
Edward Otis Chickering,	Catskill, N. Y.,	14 Hertzog Hall.
Harry Thornton Dayton,	Brooklyn, N. Y.,	Chi Psi House.
Alfred Duncombe,	Jersey City,	15 Hertzog Hall.
Worthington Seymour Farley, Jr.,	Fort Plain, N. Y.,	154 New St.
Willard Avery Heacock,	Gloversville, N. Y.,	64 College Ave.
Jasper Samuel Hogan,	Guilderland Cent., N.Y.,	53 Hertzog Hall.
Robert James Hogan,	Guilderland Cent., N.Y.,	53 Hertzog Hall.
Abram Whittaker Hopper,	Spring Valley, N. Y.,	37 Hertzog Hall.
Charles Wesley Hulst,	Greenwich, N. Y.,	69 French St.
Charles Seward Johnson,	Brier Hill, N. Y.,	122 Bayard St.
Harry Lockwood,	Batavia, Ill.,	48 Hertzog Hall.
Samuel Clifton Mabon,	New Brunswick,	2 Seminary Pl.
Reid F. Miller,	Sacramento, Cal.,	166 New St.
Henry McKnight Moore,	Jersey City Heights,	108 Bayard St.
William Pohlman Pool,	Raritan,	114 Bayard St.
John Howard Raven,	Brooklyn, N. Y.,	38 College Ave.
Herbert Bennet Roberts,	Kingston, N. Y.,	23 Hertzog Hall.
Howard Augustus Reynolds,	New Brunswick,	179 George St.
Patrick Augustine Ray,	Greenwich, N. Y.,	90 Albany St.
Walter Cooley Sampson,	Albany, N. Y.,	Chi Psi House.
Edward Van Vechten Searle,	Wyckoff,	114 Bayard St.
James Coffin Stout,	New Brunswick,	56 Bayard St.
Clifford Henry Strang,	Montrose-on-Hudson, N. Y.,	338 George St.
Selah Woodhull Strong,	Flatbush, L. I.,	63 French St.
William Van Deursen Strong,	Flatbush, L. I.,	43 Hertzog Hall.
Elon M. Waggoner,	Guilderland Cent., N. Y.,	37 Hertzog Hall.
Gillett Wynkoop,	Catskill, N. Y.,	307 George St.

Scientific Section.

Names.	*Residences.*	*Rooms.*
Samuel Nelson Atwater,	Newark,	155 Bayard St.
John Charles Aydelott,	Pekin, Ill.,	122 Bayard St.
Philander Betts,	Hackensack,	Hackensack.
Elihu Calvin Bryan,	Shekomeko, N. Y.,	209 Suydam St.
Albert Allen Campbell,	Olympia, W. T.,	178 George St.
Joseph Compton Castner,	New Brunswick,	130 Church St.
Paull Jewell Challen,	New Brunswick,	136 Hamilton St.
John De Witt Cruickshanks,	Ovid, N. Y.	434 George St.
James Dougherty,	New Brunswick,	420 George St.
Robert Joseph Dougherty,	New Brunswick,	420 George St.
Hiram Augustus Farrand,	Vineland,	Albany St.
Harry Duncan Garretson,	Franklin,	434 George St.
Thomas Mandeville Hopper,	Paterson,	379 George St.
Rodney Tuthill Howell,	Whippany,	Chi Psi House.
Harold Lyman Hoyt,	Bound Brook,	9 Morris St.
Samuel Arthur Johnson,	Morristown,	S. N. Brunsw'k.
Geo. Washington Mercer, Jr.,	Newark,	155 Bayard St.
George Andrews Mitchell,	Vineland,	339 George St.
David Bardey Nevius,	Bedminster,	69 French St.
Marcus Caldwell Sears,	Bloomingrove, N. Y.,	33 Livingston Av.
Frederick Seymour Smith,	Morristown,	209 Suydam St.
Henry Hewgill Stevens,	New Brunswick,	Clifton Ave.
Isaac Mabbett Sutton,	Poughkeepsie, N. Y.,	64 College Ave.
Clarence H. Terhune,	New Brunswick,	185 Livingston Av.
Arthur Benjamin Totten,	Middlebush,	Middlebush.
Cornelius D. Vreeland, Jr.,	Little Falls,	114 Bayard St.
Edward Lasky Welling,	Warwick, N. Y.,	33 Livingston Av.

SPECIAL STUDENTS.

NOT CANDIDATES FOR A DEGREE.

Names.	*Residences.*	*Rooms.*
George Benjamin Divine,	Elizabeth,	Elizabeth.
Charles Esselstyn,	Hudson, N. Y.,	338 George St.
Albert Bodwell Harrison,	Irvington,	27 Albany St.
Baldwin Hasbrouck,	East New Brunswick,	E. N. Brunsw'k.
Louis Brodhead Hasbrouck,	East New Brunswick,	E. N. Brunsw'k.
William Charles Hubbard,	Plainfield,	Plainfield.
I. Ellis Irick,	Vincentown,	122 Bayard St.
James Hasbrouck Le Fevre,	Middlebush,	Middlebush.
Gwin Lemassena,	Newark,	Albany St.
Robert E. Parsons,	Flushing, N. Y.,	381 George St.
Isaac Sperling,	Middlebush,	16 Hertzog Hall.
William Bishop Tomkins,	East Orange,	381 George St.
George Edwin Tomlinson,	Adams Centre, N. Y.,	Hamilton St.

SUMMARY.

Graduates	6	Sophomores	32
Seniors	18	Freshmen	54
Juniors	32	Special Students	13
		Total	155

[Total last year, 123.]

Classical Department.

1. Admission.

Examinations for admission to the College will be held on Monday and Tuesday of Commencement week, (see Calendar, page 2,) beginning at 10 o'clock Monday morning. Applicants for admission may also be examined on Tuesday, the eighteenth of September, at 10 A. M. Students who can do so are advised to be present for examination in June.

From certain preparatory schools of approved standing, students are admitted (conditionally) upon the Principal's certificate.

Examinations for admission are both written and oral.

Candidates for admission to advanced classes must sustain a satisfactory examination upon the subjects previously studied by the class which they propose to enter, as well as on those required for admission into the Freshman Class. Under this regulation, students are admitted at any time during the collegiate year.

Students who desire to pursue selected branches of study may do so, if properly prepared, to pursue them with the regular classes. Special provision is made for such students in the Scientific Department. All such students are required to take examinations with the class with which they study, and sufficient work must be taken to occupy fully the student's time.

It is expected that students who present themselves will be prepared, by careful study and by *reviews* of their work, to pass successfully a thorough examination on the subjects which are required.

Only such students are admitted with conditions as are, in the opinion of the examiners, so nearly prepared as to be able to

make up all deficiencies during the first two months of the term, meanwhile maintaining a good standing in their class.

Conditioned students will have an opportunity given them to remove their entrance conditions as early as possible in the first term. It is expected that *all entrance conditions* will be made up before the Thanksgiving recess.

SLOAN PRIZES FOR THE BEST ENTRANCE EXAMINATIONS, CLASSICAL COURSE.

A FIRST PRIZE OF ONE HUNDRED DOLLARS in cash and a SCHOLARSHIP YIELDING $300, to apply on term bills; and a SECOND PRIZE OF FIFTY DOLLARS in cash and a SCHOLARSHIP YIELDING $300, to apply on term bills, will be awarded to the students who shall be adjudged by the examiners to have passed the best examination among the applicants for admission to the Freshman Class, in 1888. The names of the successful candidates, and of the schools at which they prepared for College, will be printed in the annual catalogue. The cash prizes will be awarded, one-half at matriculation and one-half at the end of the second term of the Freshman year. The scholarship funds will be applied to cancel term bills for tuition during the course, and will be forfeited if the student's general average on the work of the year falls below 80 on a scale of 100.

These two cash prizes have been given for six years by Hon. SAMUEL SLOAN, of New York, a member of the Board of Trustees.

The FIRST PRIZE, September, 1883, was awarded to STEPHEN DU BOIS DEMAREST, prepared at the Rutgers College Grammar School, New Brunswick; the SECOND PRIZE, to WILLIAM PIERSON MERRILL, prepared at the High School, New Brunswick.

The FIRST PRIZE, September, 1884, was awarded to MAURICE J. THOMPSON, prepared at the Somerville Preparatory School, Somerville; the SECOND PRIZE, to SHERMAN GRANT PITT, prepared at the State Normal School, Potsdam, N. Y.

The FIRST PRIZE, September, 1885, was awarded to JAMES HARVEY KEELING, prepared at the Utica Free Academy, N. Y.;

SECOND PRIZE, to CHARLES MAAR, prepared at J. R. LESLIE'S English and Classical School, of Poughkeepsie, N. Y.

The FIRST PRIZE, September, 1886, was awarded to JACOB FREDERICK BURG, prepared at the Rutgers College Grammar School, New Brunswick; the SECOND PRIZE, to ALEXANDER VAN WAGONER, prepared at the same school, New Brunswick, E. T. TOMLINSON, A.M., Head-Master.

The FIRST PRIZE, September, 1887, was awarded to CHARLES SEWARD JOHNSON, prepared at the Oswego State Normal School, Oswego, N. Y., E. A. SHELDON, Principal; SECOND PRIZE, to HARRY LOCKWOOD, Batavia, Illinois, prepared at the Rutgers College Grammar School, New Brunswick, E. T. TOMLINSON, A.M., Head-Master.

REQUIREMENTS FOR ADMISSION.

The following, or a full equivalent, are the requirements for admission to the Freshman Class:

LATIN.—Harkness's or Allen and Greenough's, or Gildersleeve's Latin Grammar, including the principles of Prosody.

Jones' Latin Composition, or the first 44 sections of Arnold's Latin Prose Composition, or an equivalent.

Cæsar, Four Books of the Gallic War [or Books I. and II. and Sallust's Catiline].

Vergil, Æneid, 6 Books.

Seven Orations of Cicero, of which it is recommended that the orations for the Poet Archias, on the Manilian Law, and for King Deiotarus, shall be three.

Questions on the subject-matter, the history, the geography and the mythology involved in the Latin read. *Students will be tested in reading "at sight" easy Latin (e. g., Cæsar, Sallust, Cicero, Quintus Curtius); and a map of Italy, to be drawn from memory, at the examination, will be required, together with familiarity with the classical geography of Gaul and Spain; and Smith's Smaller History of Rome (or an equivalent history of this period) to the time of the Empire.*

GREEK.—Hadley's or Goodwin's Greek Grammar, including the principles of Prosody, and of *Accentuation.*

Xenophon's Anabasis—three books, or an equal amount of Goodwin's Greek Reader.

Arnold's First Greek Book, or Whiton's First Greek Book, entire; and Jones' Exercises in Greek Composition or Sedgwick's First Greek Writer, Introduction and 60 exercises.

Homer—The Iliad, three books (omitting the catalogue of the ships).

Questions on the subject-matter, etc., as above.

Greek History will be required, Smith's Smaller History of Greece, or an equivalent; students will be tested at the entrance examinations in reading at sight easy Greek prose; and a map of Greece, with a good knowledge of the Geography of the Greek Islands and of Asia Minor, will be required.

MATHEMATICS.—Arithmetic complete, including the Metric System.

Algebra through Quadratic Equations, including Radicals; or the first 18 chapters of Wentworth's Complete Algebra.

Plane Geometry—four books of Wentworth, or an equivalent, *including the Problems and Exercises.*

Careful attention should be given to the *exercises* in Geometry, as they greatly aid in acquiring readiness in geometrical reasoning.

THE ENGLISH BRANCHES:

Geography:—

English Grammar:—

Spelling:—

History of the United States (Johnston's History of the United States; Higginson's Young Folks' History; Swinton's Condensed History of the United States).

A short English Essay is also required, to be written at the examination, on some theme drawn from books announced in advance; the essay to be correct in spelling, punctuation, division into paragraphs, grammar and expression. In June and

September, 1888, the themes will be drawn from these books, which all students who apply for admission then should have read carefully: Hawthorne's *Marble Faun;* Shakespeare's *Midsummer Night's Dream;* Gray's *Elegy;* Coleridge's *Ancient Mariner.*

In 1889, students should be familiar with Irving's *Sketch Book;* Shakespeare's *Julius Cæsar;* Tennyson's *In Memoriam;* Scott's *Ivanhoe.*

2. Suggestions in Regard to Preparation.

Latin.—In preparing in Latin, the student should give close attention to the regular prose constructions of the language, and especially, in reading Cæsar or Sallust, to the forms of "indirect discourse." He should be thoroughly drilled in the use and the force of the moods and *tenses,* the consecution of tenses, the gerundive construction, etc., and should be taught to analyze the sentence into subject and predicate, and the words, phrases or clauses which modify the subject and the predicate.

Latin Composition.—The student should have as much exercise in writing Latin as possible. From the first, exercises in rendering English into Latin, both orally and in writing, are earnestly recommended.

Pronunciation.—The system followed is the Roman. For correctness of pronunciation, the rules of quantity are necessary to those who have not been thoroughly accustomed to the correct sound of the Latin words.

Greek.—The applicant must be thoroughly familiar with the leading principles of the whole Grammar, including accent, quantity and prosody.

In pronunciation, the accent must be followed in prose; but in poetry, regard will be had only to quantity.

Work done in reading other authors than those named in the requirements will be accepted, provided the pupil can pass upon a *full* equivalent.

MATHEMATICS.—Attention is especially called to the Metric System of Weights and Measures, a practical knowledge of which is indispensable, since it is used in the class-room; and to the *essential importance of a thorough preparation in the elements of Algebra*, on which subsequent success in Mathematics so much depends. The mistake is often made of passing too hurriedly over the first few chapters of Algebra. The whole book will be more quickly and surely mastered if the first part be studied slowly and thoroughly, with frequent reviews.

In preparing in Mathematics the student should acquire a proficiency and readiness in the application of the principles; and to that end the careful solution of numerous and varied examples is earnestly recommended. It is also desirable to cultivate habits of neatness and order in the presentation of work on the blackboard or on paper.

UNITED STATES HISTORY.—Candidates for admission are examined in the History of the United States, with special reference to the colonization of the several States, the forms of government which existed previous to the war for independence, the causes and principal events of that war, the period of the Confederation, the establishment of the Federal Constitution, with the general history subsequent to that event.

3. COURSE OF INSTRUCTION.

The COURSE OF INSTRUCTION occupies four years, with three terms in each year.

The following is a scheme of the studies of the course. It furnishes an exhibit of the amount of work required of students during the four years, and indicates to candidates for advanced standing the equivalents which will be accepted from them:

FRESHMAN CLASS.

Exercises during each term of the year in Composition, Declamation and Ex Tempore Speaking. Bible-Class, Sabbath morning.

FIRST TERM, THIRTEEN WEEKS.

1. LATIN (4 hours a week).—Cicero, De Amicitia; Oral and Written Composition; Shumway's Latin Synonymes; Halsey's Etymology.
2. GREEK (4 hours a week).—Lucian's Timon, or three books of Homer Sidgwick's First Greek Writer, beginning with the 61st exercise.
3. MATHEMATICS (4 hours a week).—Wentworth's Geometry, from Book V.
4. RHETORIC (2 hours a week).—Kellogg; Lectures; Essays.
5. PHYSIOLOGY (2 hours a week).—Dalton; Lectures.

SECOND TERM, THIRTEEN WEEKS.

1. LATIN (4 hours a week).—Livy; Composition.
2. GREEK (4 hours a week).—Demosthenes' Olynthiac Orations, 2d and 3d, and one Philippic; Sidgwick's First Greek Writer finished; Jebb's Primer of Greek Literature.
3. MATHEMATICS (5 hours a week).—Wentworth's Geometry completed; Wentworth's Algebra from Logarithms.
4. ENGLISH LITERATURE (2 hours a week).—History of the English language, Lounsbury; Study of Words, Trench.
5. COMPARATIVE ZOÖLOGY (1 hour a week).—Orton.
6. ELOCUTION.—Lectures and Declamations.

THIRD TERM, TEN WEEKS.

1. LATIN (4 hours a week).—Horace; Mythology and Antiquities.
2. GREEK (4 hours a week).—Isocrates' Panegyric, Ed. Felton; Wilkins' Manual of Greek Prose.
3. MATHEMATICS (4 hours a week).—Wentworth's Algebra completed.
4. BOTANY (2 hours a week).—Gray.
5. ENGLISH LITERATURE (2 hours a week).—An English Author.
6. ENGLISH COMPOSITION.—Exercises.

SOPHOMORE CLASS.

Exercises throughout the year in Composition, Declamation and Ex Tempore Speaking. Bible-Class, Sabbath morning.

FIRST TERM.

1. LATIN (4 hours a week).—Cicero's Second Philippic and De Oratore; Latin Composition.
2. GREEK (4 hours a week).—Sophocles' Œdipus Rex; Wilkins' Manual of Greek Prose Composition.
3. INORGANIC CHEMISTRY (3 hours a week).—Lectures, with Experiments, Richter; Austen's Lecture-Notes.
4. MATHEMATICS (5 hours a week).—Wentworth's Trigonometry, Plane and Spherical.

SECOND TERM.

1. LATIN (3 hours a week).—Tacitus, De Oratoribus and Historiæ; Composition.
2. GREEK (3 hours a week).—Thucydides, one book; Wilkins' Manual of Greek Prose Composition.
3. MATHEMATICS (3 hours a week).—Bowser's Analytic Geometry.
4. ANCIENT AND MODERN HISTORY (4 hours a week).—Fisher's Outlines, with Essays by the Class.
5. INORGANIC CHEMISTRY (3 hours a week).—Lectures, with Experiments Richter; Austen's Lecture-Notes.

THIRD TERM.

1. LATIN (4 hours a week).—Pliny's Letters, Terence or Plautus; History of Latin Literature.
2. GREEK (4 hours a week).—Aristophanes' Knights, Koch's Ed.; Wilkins' Manual of Greek Prose Composition completed.
3. MATHEMATICS (3 hours a week).—Bowser's Analytic Geometry.
4. HISTORY (2 hours a week).
5. INORGANIC CHEMISTRY (3 hours a week).—Lectures, with Experiments, Richter; Austen's Lecture-Notes.

JUNIOR CLASS.

Exercises throughout the year in Composition and Original Declamation.
Bible-Class, Sabbath morning.

FIRST TERM.

PRESCRIBED STUDIES:

1. GREEK (3 hours a week).—Plato's Phædo, Wagner's Ed.; Buckholz's Anthology, Bändchen II.
2. MENTAL PHILOSOPHY (4 hours a week).—Porter's Elements of Intellectual Philosophy and Lectures, with Essays on Metaphysical Subjects.
3. PHYSICS (2 hours a week).—Deschanel; Lectures, with Experiments.
4. GERMAN (3 hours a week).—Whitney's Brief German Grammar.
5. HISTORY (2 hours a week).—The English Constitution.

ELECTIVE STUDIES, at least one of which is to be pursued; the course in Mathematics and that in Chemistry, if chosen, hold throughout the year; the other electives are arranged with a course for each term:

1. MATHEMATICS.—Differential and Integral Calculus, Bowser.
2. CHEMISTRY.—Experimental Chemistry, Remsen; Qualitative Analysis, Fresenius; Laboratory Practice.
3. ENGLISH.—Sweet's Anglo-Saxon Primer; Chaucer.
4. LATIN.—Cicero, De Natura Deorum; Writing Latin.
5. FRENCH.

SECOND TERM.

PRESCRIBED STUDIES:

1. LATIN (3 hours a week).—The Institutes of Justinian, or Gaius; Morey's Outlines of Roman Law; Writing Latin.
2. MENTAL PHILOSOPHY AND LOGIC (3 hours a week).—Porter's Elements of Intellectual Philosophy, and Lectures; Essays on Metaphysical Subjects; LOGIC—Jevons-Hill's Logic.
3. PHYSICS (2 hours a week).—Deschanel; Lectures, with Experiments.
4. GERMAN (3 hours a week).—German Reader.
5. ASTRONOMY (3 hours a week).—Newcomb and Holden.

ELECTIVE STUDIES, at least one of which is to be pursued:

1. MATHEMATICS.—Calculus, Bowser.
2. CHEMISTRY.—Qualitative Analysis, Fresenius; Lectures; Laboratory Practice.
3. ENGLISH.—Shakespeare.
4. GREEK.—Aristotle's Ethics, Books I. and II.
5. FRENCH.

THIRD TERM.

PRESCRIBED STUDIES:

1. HISTORY OF CIVILIZATION (4 hours a week).—Guizot; Essays.
2. GERMAN (3 hours a week).—Recitations; 1 hour a week, Lecture on German Literature—Classic Authors.
3. PHYSICS (2 hours a week).—Deschanel; Lectures, with Experiments.
4. ENGLISH LITERATURE (2 hours a week).

ELECTIVE STUDIES, at least two of which are to be pursued:

1. GREEK.—Plato's Republic. Books V. and VI.
2. LATIN.—Catullus, Tibullus, Propertius.
3. MATHEMATICS.—Calculus, Bowser.
4. CHEMISTRY.—Qualitative Analysis, Fresenius; Lectures; Laboratory Practice.
5. ENGLISH.—Milton.
6. FRENCH.
7. METAPHYSICS.

SENIOR CLASS.

Exercises throughout the year in Composition and Original Declamation.
Bible-Class, Sabbath morning.

FIRST TERM.

PRESCRIBED STUDIES:

1. MORAL PHILOSOPHY (4 hours a week).—Calderwood's Hand-book; Lectures; Essays.
2. POLITICAL ECONOMY (4 hours a week).—Walker and Perry; Lectures.
3. PHYSICS (2 hours a week).—Deschanel; Lectures.
4. LECTURES (1 hour a week).—On THE SCIENCE AND ART OF TEACHING, and on SOCIAL SCIENCE, HISTORY, ARCHÆOLOGY, etc.

ELECTIVE STUDIES, at least two of which are to be pursued; courses in Senior Elective work are chosen at the beginning of the first term and pursued for the entire year:

1. GREEK.—Selections from Aristotle's Organon with Porphyry's Isagoge.
2. ASTRONOMY.—Loomis' Practical Astronomy; Observatory Work; Lectures.
3. PHYSICS.—Electricity.
4. MODERN LANGUAGES.—German; French.
5. CHEMISTRY.—Quantitative Analysis, Fresenius; Lectures; Laboratory Practice.
6. LATIN.—Rhetorical, or Legal, or Patristic.
7. HISTORY.—Comparative Study of the Growth of Modern Constitutions.
8. HEBREW (extra hours).

SECOND TERM.

PRESCRIBED STUDIES:

1. POLITICAL ETHICS; THE DUTIES OF CITIZENSHIP (4 hours a week).—Lieber and Woolsey, Lectures, Essays.

2. CONSTITUTION OF THE UNITED STATES (5 hours a week).—Cooley; Essays.

3. ARCHITECTURE (2 hours a week, the first half of the term).—Lectures, illustrated by stereopticon views.

4. GEOLOGY (2 hours a week, the last half of the term).—Lectures and Dana.

ELECTIVE STUDIES, at least two of which are to be pursued:

1. LATIN.—Selections from Lucretius, and Vergil's Georgics.

2. ASTRONOMY.—Loomis' Practical Astronomy; Observatory Work; Lectures.

3. MODERN LANGUAGES.—German; French.

4. CHEMISTRY.—Quantitative Analysis, Fresenius; Lectures; Laboratory Practice.

5. PHYSICS.—Electricity.

6. GREEK.—Buckholz's Greek Anthology, Part II.

7. HISTORY.—For the present Senior Class: The Invasion of Italy by the French, 1494-1515.

8. HEBREW (extra hours).

THIRD TERM.

1. MORAL PHILOSOPHY (4 hours a week).—The Evidences of Christianity; Lectures on Practical Ethics.

2. GEOLOGY (4 hours a week).—Lectures and Dana.

3. ARCHITECTURE (3 hours a week).—Lectures.

ELECTIVE STUDIES, at least two of which are to be pursued:

1. GREEK.—Trendelenburg's Elementa Log., Aristot.; Lectures on the Organon.

2. MODERN LANGUAGES.—German; French.

3. CHEMISTRY.—Preparation of Chemical Substances; Lectures; Laboratory Practice.

4. ASTRONOMY.—Loomis' Practical Astronomy; Observatory Work; Lectures.

5. PHYSICS.—Electricity.

6. LATIN.—Latin Style; Lectures and Practice.

7. HISTORY.—The Historical Drama—Shakespeare, Schiller, etc.

8. HEBREW (extra hours).

4. Remarks on the Course of Study.

In the above Schedule all the studies of the Freshman and Sophomore years are prescribed, and are intended to be of such a character as will furnish the sound basis of a liberal education, whatever profession or career is subsequently chosen. During the Junior and Senior years, certain subjects are prescribed for all candidates for a degree, while other subjects are made elective, at least one of which must be pursued by each student, in the Junior year, and at least two in the Senior year.

Moral Philosophy, Practical Ethics and the Duties of Citizenship.

Moral Philosophy is taught during the Senior year by the study of text-books, by comments and criticisms, and by lectures. Full and intelligent discussion in the class-room is encouraged, in the belief that mere memorizing and reciting does not so teach such truth as to make it vitally the student's own.

The definite aim of the work in this department is not simply to set before the student what certain authors have written concerning theories of morality and virtue; but to make the study of the fixed and eternal distinction between right and wrong tend directly, so far as possible, to the voluntary and intelligent acceptance of the moral law, by every student, in the daily and hourly direction of his life.

Lieber's Political Ethics is made the basis of one term's work. A course of Lectures on Practical Ethics is given; and lectures and discussions on the Duties of Citizenship are made an especial feature of this course of study.

Brief addresses are made from time to time upon the questions of Social Science, and upon the Reforms which are before the public as problems of "Applied Christianity."

LANGUAGES.

LATIN.—While the chief purpose kept before the student during the early portion of the course is the thorough mastery of the language, as far as is practicable the study of the history, institutions and literature of the Romans is pursued in connection with the Latin read. In the selection of text, care is taken to cover the principal periods of the literature, but chief prominence is given to those works which present the most valuable subject-matter for the student of Roman civilization and culture. In the later portion of the curriculum special courses are given in Roman Oratory, Law, Philosophy, etc.

From the beginning of the course instruction is given in part by means of questions and answers in Latin. Optional classes are formed for the better development of this method, and for the study of the History, Social Life and Institutions of the Romans.

Students should have Harpers' or White's Latin-English, and White's English-Latin Lexicons, and a Classical Atlas.

GREEK.—The Classical Greek authors are read by the whole class during the entire Freshman and Sophomore years, and one term of the Junior year; also, by students who elect Greek, during the whole of the Junior and Senior years. The course is intended to embrace at least one complete treatise from a leading author belonging to each period from Homer to Lucian. While the amount read is distinctly indicated by the Catalogue, it is the purpose to vary the authors, or the portions from the same author, from year to year.

Promising students are encouraged to take special courses of study, in addition to the regular class work; and private instruction, supplemented by an efficient library, is constantly given. The following books of reference are recommended: Smith's Classical Dictionaries, 6 vols.; Jelf's Greek Grammar; Krüger's Greek Grammar and Kühner's ausführliche griechische Grammatik; Liddell and Scott's Lexicon, 7th Oxford Edition; Grote's History of Greece, and Mahaffy's History of Greek Literature.

ENGLISH LANGUAGE AND LITERATURE.—The course in English embraces, with the elective study of Anglo-Saxon, the required study of the history of the English language and its literature, and the critical reading of English classics. A course of private reading is prescribed, upon which examinations are held. Essays in literary criticism are required during the Sophomore year. The elective study of the language and literature is pursued during the Junior year.

GERMAN is taught, three hours per week, to students in both sections of the class, throughout the Junior year; and, in addition to this, lectures are given upon German Literature. While accurate grammatical work is insisted upon, the aim of the course is to enable the student to read ordinary German prose with ease. Exercises in writing German are continually required.

In the Senior year, German may be pursued as an elective study by the classical students; and German text-books are used with certain students in the Chemical Laboratory, and in the study of history and philosophy.

FRENCH is taught throughout the Freshman year, in the Scientific Course, and is continued during the Sophomore and the Junior years, in the use of French text-books in studying natural science and history. Classes use *French text-books in Physics* and in the *History of Civilization*. The aim of the course is to make the grammatical and linguistic training in the study of this language as valuable to the student as possible; and to accustom him to use French books and periodicals with perfect freedom in his professional studies and work.

In the Classical Course, instruction in French is offered to those who wish to take it as a study outside the course, and a course in French has been made an elective study for the Junior year.

HEBREW.—This language is taught as an extra study during the Senior year if any students desire to pursue it.

MATHEMATICS AND ASTRONOMY.

The required studies in Mathematics include Geometry, with problems and exercises in Geometrical invention; Algebra, Plane and Spherical Trigonometry, with their application to problems in Surveying and Navigation, and Analytic Geometry. These are the mathematical studies of the first two years.

In the Junior year the study of the Calculus is elective.

Care is taken throughout that every principle shall receive a rigorous demonstration and that it be applied as far as is practicable. No principle is thoroughly learned by the student until he can apply it.

Elementary Astronomy is taught during the second term to all the members of the Junior Class. The study of Theoretical and Practical Astronomy, with the use of the instruments of the Observatory, is elective in the Senior year. It is desirable that those who intend to take elective Astronomy should take the elective Mathematics of the Junior year, that they may be prepared for lectures in the more advanced part of the course.

The DANIEL S. SCHANCK OBSERVATORY of Rutgers College is well equipped for the work of practical instruction, being supplied with a six and one-half inch refracting telescope with position micrometer, a meridian circle with four-inch object glass, a repeating circle, and other instruments. It is in telegraphic connection with other observatories.

The refined methods of measurement which the use of astronomical instruments requires, the discussion of results and the determination of errors, afford a means of mental training unsurpassed in value. Add to these the familiarity with spherical astronomy and with the constellations which this study imparts, and the advantage gained is a strong recommendation of its pursuit.

The Observatory was designed and is used not only for independent work, but for the *instruction of students in the theory and the use of astronomical instruments, and in practical obser-*

vatory work. It affords to students unusual facilities for learning how to use astronomical instruments.

PHYSICS.

This subject is taught by lectures, and copious additions are made to the matter of the text-book. Each point is demonstrated as far as possible; and the relations of the subject to ordinary natural phenomena, the processes of the industrial arts, etc., are pointed out. Students are encouraged to use the apparatus under the direction of the Professor in charge, and are trained to distinguish the essential from the casual conditions of experiments, as well as to infer from scientific data *no more* than is certain and warranted. The course begins with Mechanics and proceeds to Heat, Electricity, Sound and Light. A course in Physics, with especial reference to the study of Electricity, is this year added to the list of Senior Electives.

The apparatus is well fitted to illustrate all principles, and such additions are made to it as the industrial applications of science demand.

Students in the Scientific Course, in the study of Physics, use the Paris Edition (French) of Ganot's larger treatise.

PHYSIOLOGY, ZOÖLOGY AND BOTANY.

The course in this department begins with the Freshman year, in which Physiology, Zoölogy, and Botany are taught. The several text-books are in all cases supplemented by illustrated lectures, and in the study of Botany by field excursions for practical work in the analyzing and classification of botanical specimens. Class-room microscopes, and the larger solar microscope are continually used by the students in all these branches of study. In the Junior and Senior years, these subjects are still further elaborated and studied in the sciences of Meteorology, Physical Geography, and Geology. The course of instruction is planned so as to bring these objects of every-day observation to the continued attention of the student, to teach him the principles of

classification and systematic study, and to show their important relations to the successful conduct of the practical affairs of life. The extensive collections of minerals, fossils, geological and botanical specimens, shells, birds, etc., are arranged for study in the Museum of Geological Hall.

CHEMISTRY.

INORGANIC CHEMISTRY it taught by text-book and lectures. The course extends throughout the Sophomore year, three hours per week. The subject is introduced by experimental lectures on the volume composition of substances. Then follows a careful black-board drill on the writing of empirical and constitutional formulas of acids, bases and salts. The elements are next taken up in lectures, followed by recitations. In all cases the aim is to illustrate *every point* experimentally, thus giving the student ample experience in rigid experimental demonstration. The students are required to take full notes of the lectures, and to sketch the apparatus used in the experiments. These notes are afterwards copied and handed to the Professor for examination, criticism, and correction, training the student in accurate observation, and facility and brevity of expression. During the year, Stoichiometry, the Mathematics of Chemistry, is taught by black-board exercises.

ORGANIC CHEMISTRY is taught by lectures, recitations, and laboratory work. Beginning with the determination of the molecular weight of organic compounds, the student is led to examine the principles of substitution, valence and structure of organic compounds. Starting out from Methane, the various members of the Methane (mono-carbon) series are derived. When this series has been completed, the Ethane series is taken up and gone through with in the same manner. Then follow the Butane and Propane series, etc. At the end of each series a recapitulation of the typical reactions, and relations of each group is given

The manner of treating the subject is substantially the same

as that introduced by Professor Hofman, of Berlin. As the various substances are considered, their relations to vegetable and animal life and to agriculture are pointed out. Attention is also given to their practical applications, as in food, medicines, dyeing, and in manufactures generally. The lectures are accompanied by full experimental illustrations.

APPLIED CHEMISTRY.—The applications of Chemistry to the arts and manufactures are taught by lectures and text-book. Whenever it is practicable, the actual products are exhibited to the students, and the manufacturing processes reproduced in miniature. Attention is drawn to the scientific relations and connections between the various manufactures. The great losses by imperfect methods of manufacture and by waste products are pointed out, and the student is taught to see the true economy of production. Illustrative of the lectures, visits are made to various manufacturing establishments, of which there are a number in and about New Brunswick, and an opportunity is given to see manufacturing operations in actual working.

ELECTIVE CHEMISTRY.—In the Junior and Senior years, students may elect a course in Analytical Chemistry with Laboratory Practice and Lectures. The experimental studies in this department have proved both attractive and profitable to those intending to devote themselves to Law or Medicine, or to business pursuits, as well as to men who intend to teach or to pursue lines of work immediately connected with chemistry and its applications.

The pupil begins by making the experiments in Remsen's Chemistry, thus acquiring by actual experience a familiarity with chemical substances and chemical phenomena.

The study of *Qualitative Analysis* is next taken up. The student makes the test, studies the reactions, and proceeds rapidly from analysis of simple substances to the more complex. The method here followed of keeping notes of every step affords the student valuable practice in the three divisions of experimental science—Experiment, Observation and Inference.

The theory of analysis is explained in the lectures and recitations on the subject. In connection with this subject, *Blowpipe Analysis* is also taught. *Quantitative Analysis* now follows. The student having learned the means of detecting the constituents of a substance proceeds to the determination of their amount. Pure salts of known composition are analyzed at first, so that the results may be compared with the theoretical percentages. A sufficient degree of accuracy having been obtained, substances of unknown composition, as minerals, metals, ores, waters, urines, poisons, fertilizers, coals, etc., are analyzed. Having thus become thoroughly acquainted with the theory and practice of analytical chemistry, the student undertakes original experimental investigation in the various branches of pure and applied chemistry. Results obtained in students' investigations have been from time to time published in the scientific journals. During their entire course students are required to prepare samples of pure chemicals, and by this means such practice is given in manipulation as cannot be acquired in any other way.

RHETORIC.

ELOCUTION.—During the Freshman year, lectures are delivered on the general principles of Elocution, and a practical application of these principles is made by appropriate exercises in Declamation, in which the members of the class are carefully drilled. In addition to this there are exercises in Oratory by all the students, both in the class-room and the College Chapel. The Freshman and Sophomore classes speak selected pieces; the Juniors and Seniors are required to deliver original orations.

In the department of Rhetoric, begun during the Freshman year, an effort is made to teach the principles of Composition, not as laid down in mechanical rules, but as springing from psychological laws and relations. Ideas presented in accordance with various mental requirements and influences are shown to contain the true philosophy of rational and effective discourse. Illustrative references to the Masterpieces of Oratory, and to other forms of the best English Classical Literature, are freely given. Essays are required throughout the entire course.

EX TEMPORE SPEAKING.

The *Bussing Prizes* for excellence in *ex tempore* speaking, recently founded, are designed to cultivate the habit of presenting clearly, forcibly and accurately, and in a manner to convince an audience, the facts and ideas a student has upon themes with which he may fairly be supposed to be somewhat conversant. The repeated competitions for these prizes during the four years of the College course have already produced excellent effects.

METAPHYSICS AND LOGIC.

MENTAL PHILOSOPHY.—Porter's Elements of Intellectual Philosophy is used as a text-book during the first term and a part of the second term of the Junior year. The characteristic doctrines of the distinctive schools in Ancient and Modern Philosophy are presented in a course of lectures upon the representative thinkers of these schools. Much attention is paid to the most important philosophical and metaphysical questions now at issue among speculators. The results of recent critical discussions, together with comments, are interspersed with the daily recitations.

LOGIC.—Jevons-Hill's text-book is used. Special care is taken to enforce a practical application of logical formulas in the resolution of arguments, and the detection of sophistries. To this end illustrative examples are drawn from different authors and much oral instruction is given.

HISTORY, POLITICAL ECONOMY AND CONSTITUTIONAL LAW.

HISTORY.—The study of History is begun in the Sophomore year with the use of a text-book giving the outlines of ancient history, followed by instruction in modern history, tracing the formation and growth of modern states. In this part of the course, a knowledge of historical geography is essential, and to this end a constant use of the historical atlas is required of the

student. From time to time and increasingly as the class becomes familiar with the facts of history, and especially with the general relations of events, topics are assigned for special study, the results of such study by different members of the class and the various historical narratives which have been consulted are compared, the purposes and characteristics of historians pointed out, and instruction is given on the sources of history and historical methods.

The first term of the Junior year is given to a study of the English Constitution. In the third term Guizot's History of Civilization in Europe is used as a text-book. In lectures before the class, attention is directed to the action and reciprocal influences of political forces. The subjects assigned for essays are intended to stimulate a desire to understand the abstract and universal ideas which underlie the causes of events and which give to history its continuity and unity.

For students of the Senior year and for graduates, the Professor of History has formed a class in which the methods of study will be those of the so-called historical "Seminary." The following may serve as examples of the nature of the subjects proposed for the investigation in this class:

Methods of historical inquiry; fields open to the American student for original historical research; the nature of local government in England and America; comparative study of local institutions in the United States; the English Government in its theory and methods.

POLITICAL ECONOMY.—Instruction is given in Political Economy to the Senior Class in the first term by means of text-books, lectures and conversational discussions. The student is required to be familiar with the leading principles of this subject as presented by the author whose work is used as a text-book, and is then encouraged to study economical problems of the present time from the historical and, so far as may be, absolutely impartial standpoint.

CONSTITUTIONAL LAW.—The Senior Class will pursue the study of Constitutional Law in the second term. With the

study of the present status of Constitutional Law, a constant reference to the reports of decisions in the more important cases will serve to develop a familiarity with the processes of constitutional growth. Subjects involving constitutional questions will be assigned for the writing of essays.

During the same term the study of the History of the Constitution of the United States is pursued by the Senior Class of the Scientific Department.

INTERNATIONAL LAW.—The work of a French or German author will be made the basis of an exposition of the principles of International Law, while at the same time the acknowledged superiority of American and English authorities will be kept in view. The subject is taken up in the second term of the Senior year.

ARCHITECTURE.

ARCHITECTURE is taught during a part of the second and all the third term of the Senior year, and is illustrated by stereopticon pictures, showing the successive orders and styles which have prevailed among different peoples and at different times.

PHYSICAL DEVELOPMENT—GYMNASIUM.

The Athletic Association, composed of students of Rutgers College, possesses large and commodious grounds.

The excellent *Gymnasium* in Suydam Hall, three minutes' walk from the College buildings, by the courtesy of the Theological Seminary of the Reformed Church, is open to the daily use of the students of Rutgers.

A thoroughly qualified Instructor is in attendance, and all students of the three lower classes are required to take systematic exercise in the Gymnasium, under his direction and supervision.

The health of the under-graduates has materially improved since this systematic training has been undertaken; and it is expected that hereafter all classes will do regular work in the Gymnasium.

SCIENTIFIC DEPARTMENT.

RUTGERS SCIENTIFIC SCHOOL:

BY ACT OF THE LEGISLATURE CONSTITUTED THE STATE COLLEGE FOR THE PROMOTION OF AGRICULTURE AND THE MECHANIC ARTS.

BOARD OF VISITORS.

(APPOINTED BY THE GOVERNOR.)

	Residences.	*Terms Expire.*
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I. Conditions of Admission.

Every applicant for admission must be at least sixteen years of age, and must submit to the President proper testimonials of a good moral character. If an applicant for a State Scholarship, he must also present to the President a certificate of appointment from the County Superintendent.

Examinations for admission will be held on the same days as for the Classical Department, viz.: on the Monday and Tuesday preceding Commencement, beginning at 10 o'clock A. M. on Monday, in the President's office. Applicants for admission may also be examined on Tuesday, September 20th, at the same hour and place; but all students who can conveniently do so, are advised to be present in June.

From certain preparatory schools of established reputation students are admitted without examination, upon the Principal's certificate that they have completed the required amount of work and are prepared to enter College. Blanks for such certificates will be furnished upon application to the Librarian, Mr. I. S. Upson, or to the President of the College.

Students may enter an advanced class either at the beginning of the College year or at other times, on condition that they sustain a satisfactory examination both on the preliminary studies and on those already passed over by the class which they propose to enter.

Provision is made for such students as wish to devote themselves to special subjects, if they are prepared to study profitably with the regular classes in those subjects; *but special students are required to take sufficient work fully to occupy their entire time.*

The following are the subjects in which those who wish to enter the Freshman Class of the Scientific Department are examined. Since all are such as can be acquired in our best common schools, *it is insisted that the preparation in them shall be thorough and complete.* The general regulations as to conditions and their removal will be the same as those which apply to the classical course, and may be found on page 16.

1. ARITHMETIC.—Fundamental Operations; Common and Decimal Fractions; Denominate Numbers, including the Metric System; Percentage, including Interest and Discount; Proportion; Square and Cube Root.

2. ALGEBRA to Series; as much as is contained in Loomis' Treatise on Algebra, Wentworth's Complete Algebra, or Wells' University Algebra.

3. PLANE GEOMETRY.—The *whole* of Plane Geometry will be required.

4. ENGLISH GRAMMAR--including Spelling.

5. DESCRIPTIVE GEOGRAPHY.

6. PHYSICAL GEOGRAPHY.

7. HISTORY OF THE UNITED STATES.*

8. Such a knowledge of Elementary PHYSICS and CHEMISTRY as may be obtained from Peck's Ganot's Physics, or Wells' Natural Philosophy, and Valentine's Twenty Lessons in Chemistry, or Cooley's or Steele's Chemistry, is required for admission.

9. AN ESSAY will also be required, to be written at the examination, on some subject drawn from books announced in advance. The books to be read with this in view will be those named for the English Essay in the Classical Department, on page 20.

In preparing the student for this course, it is recommended that he be drilled thoroughly in Arithmetic, as a clear understanding of its simple elementary and practical principles is essential to a good Mathematician. His preparation in Algebra to Series should be *very thorough.* In addition to understanding the PRINCIPLES of the science, he must fix them in his memory, and learn their bearing and utility, and for this reason he should pay great attention to the solution of practical examples. What is needed is ability to solve ordinary examples with facility and to explain them thoroughly.

* For particulars see pages 19 and 21.

Attention is specially called to the Metric System of Weights and Measures, a practical knowledge of which is indispensable, since it is used in the class-room.

2. Course of Study.

Three distinct courses of study are included in the schedule which follows:

I. A Course in Civil Engineering and Mechanics.

II. A Course in Chemistry and Agriculture.

III. A Special Course in Agriculture.

During the first year the studies of the two full courses are the same, and are designed to furnish a suitable introduction to the pursuit of the higher branches in either.

Engineering Course.—During the last three years, the students in this course are instructed in Railroad Curves, Descriptive Geometry, Analytic Geometry, Differential and Integral Calculus, Analytic Mechanics, Civil Engineering, Bridge-Building and Geodesy; and have daily practice in Draughting, with Exercises and Problems in Geometrical Constructions, in Descriptive Geometry, Topographical, Mechanical and Architectural Drawing, and in Graphical Statics.

Students in this course, and in the Chemical and Agricultural Course, in addition to the special and technical studies of their course, pursue such studies in English, Rhetoric, Elocution, French or German, Metaphysics, Moral Philosophy, the Duties of Citizenship and the Natural Sciences as are calculated to make them broadly educated and intelligent citizens, and not mere narrow specialists.

The course of study for the first year in this department is arranged so as to be complete in itself. It is especially designed to meet the wants of those who cannot take the entire four years' course, but who desire to fit themselves for Land Surveying. Students leaving at this period of the course, receive from the Faculty a certificate of their attainments.

CHEMICAL AND AGRICULTURAL COURSE.—During the last three years, the students in this course are instructed in General, Experimental, Theoretical, Organic and Applied Chemistry, Stoichiometry, Theory and Practice of Agriculture, Determinative Mineralogy, Blowpipe Analysis, and Analytical Chemistry, including the Analysis of Ores, Minerals, Coals, Waters, Technological Products, Soils, Fertilizers, Agricultural Products and Foods, Poisons, Urine and Animal Products. Instruction is also given in Spectrum Analysis, and Microscopical Examination. The course of study depends, to some extent, upon the student's future pursuit in life.

The special course in Agriculture occupies two years. In the remaining studies, the courses in Engineering, Chemistry and Agriculture are the same.

Special Students are received, and allowed to take part in the above courses, provided their previous education is sufficient; and particular provision is made for them, especially in the Laboratory, in the application of science to Agriculture, and in Mathematics, Surveying and Draughting.

SPECIAL PROVISION IS ALSO MADE FOR STUDENTS WHO DESIRE, AFTER COMPLETING THE REGULAR COURSE OF STUDY, TO TAKE POST-GRADUATE STUDIES.

In connection with the instruction in Agriculture in this department, the Trustees maintain an extensive model farm, designed to illustrate the principles of agriculture.

MILITARY TACTICS.—In accordance with the requirements of the law, provision is made in this department for the study of Military Tactics.

ANNUAL REPORT OF THE SCIENTIFIC DEPARTMENT.

More extended information as to the studies and courses in the Scientific School will be found in the Annual Report of the New Jersey State Scientific School to the Legislature of New Jersey, which will be sent to any address on application.

3. Organization.

This department of the College has been designated by the Legislature of New Jersey, in accordance with the law of Congress,

THE STATE COLLEGE FOR THE PROMOTION OF AGRICULTURE AND THE MECHANIC ARTS.

FREE SCHOLARSHIPS.

Under the law, a certain number of students from the State of New Jersey are received into this department of the College, and educated *free of expense for tuition.* This law also provides for the appointment by the Governor of a Board of Visitors, two from each Congressional District, who possess general powers of supervision and control. The State pupils are admitted to free scholarships on the recommendation of the Superintendent of Schools in each county and on passing the required examinations. These free scholarships are distributed among the counties in proportion to their population, as follows:

STATE SCHOLARSHIPS.

Atlantic,	1	Middlesex,	2
Bergen,	1	Monmouth,	2
Burlington,	3	Morris,	2
Camden,	2	Ocean,	1
Cape May,	1	Passaic,	2
Cumberland,	1	Salem,	1
Essex,	6	Somerset,	1
Gloucester,	1	Sussex,	1
Hudson,	6	Union,	2
Hunterdon,	1	Warren,	1
Mercer,	2		40

Notice of examinations to be held in the several districts to fill vacancies which may exist in these Scholarships from time to time will be given by the State Superintendent of Education to the several County Superintendents.

Letters to the President or the Secretary of the Faculty, inquiring about vacancies, will receive careful attention.

COURSES OF STUDY.

Freshman Year.

Exercises during the year in Composition, Declamation and Ex Tempore Speaking. Bible-Class, Sabbath morning.

FIRST TERM.

1. French (5 hours a week).—Whitney's Practical French Grammar, Part I.
2. Mathematics (5 hours a week).—Algebra completed, Wells; Geometry, Wentworth.
3. Physiology (2 hours a week).—Dalton's; Lectures.
4. Rhetoric (2 hours a week).—Kellogg; Lectures.
5. English Literature (2 hours a week).
6. Draughting (2 afternoons each week).—Practice in use of Instruments, Geometrical Problems and Applications.

SECOND TERM.

1. French (5 hours a week).—Keetel's Analytical French Reader; Grammar, Part II.
2. Mathematics (5 hours a week).—Geometry completed; Trigonometry, Plane and Spherical, Wells.
3. Comparative Zoölogy (2 hours a week).—Orton.
4. English Literature (3 hours a week).—History of the English Language; Study of Words, Trench.
5. Draughting (2 afternoons each week).—Plain and Colored Topography.

THIRD TERM.

1. French (5 hours a week).—Classic Authors.
2. Mathematics (5 hours a week).—Surveying, Murray.
3. Botany (3 hours a week).—Gray's; Lectures; Excursions.
4. English Literature (2 hours a week).—English Authors.
5. Draughting (2 afternoons each week).—Mapping, with sections, etc.; Field work.

Sophomore Year.

Course in Civil Engineering and Mechanics.

Exercises during the year in Composition, Declamation and Ex Tempore Speaking. Bible-Class, Sabbath morning.

FIRST TERM.

1. Railroad Curves (3 hours a week).—Henck's Field Book.
2. Descriptive Geometry (3 hours a week).—Church.

3. CHEMISTRY (3 hours a week).—Richter; Lectures, with Experiments; Austen's Lecture-Notes.

4. PHYSICS, from a FRENCH TEXT-BOOK (2 hours a week).—Ganot's Treatise on Physics, latest Paris edition.

5. HISTORY (3 hours a week).—Fisher's Outlines; Ancient History.

6. ENGLISH LITERATURE (2 hours a week).

7. DRAUGHTING (2 afternoons each week).—Practical Geometry, Solid; Railroad Profiles and Cross-Sections.

SECOND TERM.

1. DESCRIPTIVE GEOMETRY (3 hours a week).—Church; Construction of Problems.

2. ANALYTIC GEOMETRY (3 hours a week).—Bowser.

3. CHEMISTRY (3 hours a week).—Richter; Austen's Lecture-Notes; Lectures, with Experiments.

4. PHYSICS, FRENCH TEXT-BOOK (2 hours a week).

5. HISTORY (4 hours a week).—Fisher's Outlines.

6. ENGLISH LITERATURE (1 hour a week).

7. DRAUGHTING (2 afternoons each week).—Intersection of Surfaces, etc

THIRD TERM.

1. ANALYTIC GEOMETRY (3 hours a week).—Bowser, completed.

2. SHADES, SHADOWS AND PERSPECTIVE (3 hours a week).—Church; Construction of Problems.

3. CHEMISTRY (3 hours a week).—Richter; Austen's Lecture-Notes; Lectures, with Experiments.

4. PHYSICS, FRENCH TEXT-BOOK (2 hours a week).

5. HISTORY (2 hours a week).—Fisher's Outlines.

6. ENGLISH LITERATURE (2 hours a week).

7. DRAUGHTING (2 afternoons in the week).—Shades and Shadows; Linear Perspective, etc.

SOPHOMORE YEAR.

COURSE IN CHEMISTRY AND AGRICULTURE.

Exercises during the year in Composition, Declamation and Ex Tempore Speaking. Bible-Class, Sabbath morning.

FIRST TERM.

1. EXPERIMENTAL CHEMISTRY (6 hours a week, first two months).—Remsen.

2. QUALITATIVE ANALYSIS (6 hours a week, last month of term).—Fresenius; Lectures; Laboratory Practice.

3. CHEMISTRY (3 hours a week).—Richter; Austen's Lecture-Notes; Lectures, with Experiments.

4. PHYSICS (2 hours a week).—Ganot's Treatise on Physics, latest edition, in the French.
5. HISTORY (3 hours a week).—Fisher's Outlines; Ancient History.
6. ENGLISH LITERATURE (2 hours a week).
7. DRAUGHTING.—Projections; Free-Hand Drawing.

SECOND TERM.

1. QUALITATIVE ANALYSIS (6 hours a week).—Fresenius; Lectures; Laboratory Practice.
2. CHEMISTRY (3 hours a week).—Richter; Austen's Lecture-Notes; Lectures, with Experiments.
3. PHYSICS, FRENCH TEXT-BOOK (2 hours a week).—Lectures and Experiments.
4. HISTORY (4 hours a week).—Fisher's Outlines.
5. ENGLISH LITERATURE (1 hour a week).
6. DRAUGHTING.—Free-Hand Drawing.

THIRD TERM.

1. QUALITATIVE ANALYSIS (6 hours a week, ⅔ of term).—Fresenius; Lectures; Laboratory Practice.
2. CHEMISTRY (3 hours a week).—Richter; Austen's Lecture-Notes; Lectures, with Experiments.
3. STOICHIOMETRY (6 hours a week, ⅓ of term).
4. PHYSICS, FRENCH TEXT-BOOK (2 hours a week).
5. HISTORY (2 hours a week).—Fisher's Outlines.
6. ENGLISH LITERATURE (2 hours a week).
7. DRAUGHTING.—Shades and Shadows; Linear Perspective, etc.

JUNIOR YEAR.

COURSE IN CIVIL ENGINEERING AND MECHANICS.

Exercises during the year in Composition, Original Declamation and Ex Tempore Speaking. Bible-Class, Sabbath morning.

FIRST TERM.

1. MENTAL PHILOSOPHY (4 hours a week).—Porter's Elements of Intellectual Philosophy; Lectures; Essays.
2. DIFFERENTIAL CALCULUS (5 hours a week).—Bowser.
3. PHYSICS (2 hours a week).—Ganot; French Text-Book.
4. GERMAN (3 hours a week).—Whitney's Brief German Grammar.
5. HISTORY (2 hours a week).—The English Constitution.
6. DRAUGHTING (2 afternoons a week).—Lettering, etc.

SECOND TERM.

1. GERMAN (3 hours a week).—Wackernagel's Deutsches Lesebuch; German Method, Part II.
2. DIFFERENTIAL CALCULUS (5 hours a week).—Completed; INTEGRAL CALCULUS—Bowser.
3. PHYSICS (2 hours a week).—Ganot; French Text-Book.
4. LOGIC (3 hours a week).—Jevons-Hill's Text-Book, and Lectures.
5. ASTRONOMY (3 hours a week).—Newcomb and Holden.
6. DRAUGHTING (2 afternoons a week).—India Ink and Color Shading, etc.

THIRD TERM.

1. INTEGRAL CALCULUS (5 hours a week).—Completed.
2. HISTORY OF CIVILIZATION (5 hours a week).—Guizot, French Text.
3. GERMAN (4 hours a week).—Classic Authors, and a weekly Lecture upon German Literature.
4. PHYSICS (2 hours a week).—Ganot, French Text.
5. DRAUGHTING (2 afternoons a week).—Construction, Copying, Tracing, Blue-Print Copying.

JUNIOR YEAR.

COURSE IN CHEMISTRY AND AGRICULTURE.

Exercises during the year in Original Composition, Declamation and Ex Tempore Speaking. Bible-Class, Sabbath morning.

FIRST TERM.

1. MENTAL PHILOSOPHY (4 hours a week).—Porter's Elements of Intellectual Philosophy; Lectures.
2. QUANTITATIVE ANALYSIS (3 hours a week).—Fresenius, Cairns; Lectures; Laboratory Practice.
3. CHEMISTRY (2 hours a week).—Cooke's Chemical Philosophy.
4. PHYSICS (2 hours a week).—Ganot; Lectures, with Experiments.
5. GERMAN (3 hours a week).—Whitney's Brief German Grammar.
6. HISTORY (2 hours a week).—The English Constitution.
7. DRAUGHTING (1 afternoon each week).—Lettering, etc.

SECOND TERM.

1. MENTAL PHILOSOPHY AND LOGIC (3 hours a week).
2. QUANTITATIVE ANALYSIS (2 hours a week).—Fresenius, Cairns; Lectures; Laboratory Practice.
3. CHEMISTRY (3 hours a week).—Cooke's Chemical Philosophy.
4. AGRICULTURE.—Lectures.
5. PHYSICS (2 hours a week).—Ganot; Lectures, with Experiments.
6. GERMAN (3 hours a week).—German Reader.

7. ASTRONOMY (3 hours a week).—Newcomb and Holden.
8. DRAUGHTING (1 afternoon each week).—Shading, etc.

THIRD TERM.

1. QUANTITATIVE ANALYSIS (2 hours a week).—Fresenius, Cairns; Lectures; Laboratory Practice.
2. CHEMISTRY (3 hours a week).—Cooke's Chemical Philosophy.
3. PHYSICS (2 hours a week).—Ganot, French Text-Book.
4. AGRICULTURE.—Vegetable Physiology.
5. HISTORY OF CIVILIZATION (5 hours a week).—Guizot, French Text.
6. GERMAN (4 hours a week).—Classic Authors, and a Lecture each week upon German Literature.
7. DRAUGHTING (1 afternoon each week).—Construction.

SENIOR YEAR.

COURSE OF CIVIL ENGINEERING AND MECHANICS.

Exercises during the year in Composition, Original Declamation and Ex Tempore Speaking. Bible-Class, Sabbath morning.

FIRST TERM.

1. MORAL PHILOSOPHY (4 hours a week).—Calderwood; Lectures.
2. MECHANICS (4 hours a week).—Bowser.
3. ENGINEERING (3 hours a week).—Mahan.
4. POLITICAL ECONOMY —(4 hours a week).
5. DRAUGHTING (2 afternoons each week).—Machinery and Architecture.

SECOND TERM.

1. POLITICAL ETHICS AND DUTIES OF CITIZENSHIP (4 hours a week).—Lieber, Woolsey and Lectures.
2. ENGINEERING (4 hours a week).—Mahan.
3. MECHANICS (3 hours a week).—Bowser; Bridge-building, Wood.
4. GEOLOGY (2 hours a week, latter half term).—Dana; Lectures.
5. CONSTITUTION OF UNITED STATES (2 hours a week).
6. ARCHITECTURE (2 hours a week, half the term).—Lectures, illustrated by Stereopticon Views.
7. DRAUGHTING (2 afternoons each week).—Graphical Statics as applied to Bridges, &c.

THIRD TERM.

1. PRACTICAL ETHICS (4 hours a week).—Lectures.
2. BRIDGE-BUILDING (4 hours a week).—Wood; Geodesy; Lectures.
3. HYDROMECHANICS (3 hours a week).—Bowser.
4. GEOLOGY (4 hours a week).—Dana; Lectures.
5. DRAUGHTING.—Thesis.

Senior Year.

Course in Chemistry and Agriculture.

Exercises during the year in Composition, Original Declamation and Ex Tempore Speaking. Bible-Class, Sabbath morning.

FIRST TERM.

1. Moral Philosophy (4 hours a week).—Calderwood's Hand-book; Lectures.
2. Applied Chemistry (4 hours a week).—Wagner's Technology; Lectures.
3. Principles of Agriculture.—Lectures; Care and Feeding of Domestic Animals; Armsby's Cattle Feeding.
4. Quantitative Analysis (3 hours a week).—Fresenius, Cairns; Lectures; Laboratory Practice.
5. Political Economy (4 hours a week).
6. Draughting.
7. Visits to Manufactories.

SECOND TERM.

1. Political Ethics and Duties of Citizenship (4 hours a week).—Lieber, Woolsey and Lectures.
2. Applied Chemistry (3 hours a week).—Wagner's Technology; Lectures.
3. Agriculture.—Its Methods and Products; Johnson's "How Crops Grow."
4. Quantitative Analysis (1 hour a week).—Fresenius, Cairns; Lectures; Laboratory Practice.
5. Organic Chemistry (3 hours a week).—Remsen and Pinner-Austen.
6. Constitution of the United States (2 hours a week).
7. Architecture (2 hours a week, first half of term).
8. Geology (2 hours a week, latter half of term).—Dana; Lectures.
9. Determinative Mineralogy.—Dana.
10. Visits to Manufactories.

THIRD TERM.

1. Practical Ethics (4 hours a week).—Lectures.
2. Applied Chemistry (3 hours a week).—Wagner's Technology; Lectures.
3. Agriculture.—Lectures; Johnson's "How Crops Feed."
4. Geology (4 hours a week).—Dana; Lectures.
5. Quantitative Analysis (1 hour a week).—Fresenius, Cairns; Lectures; Laboratory Practice.
6. Organic Chemistry (2 hours a week).—Remsen and Pinner-Austen.
7. Draughting.
8. Thesis.
9. Assaying (1 hour a week).—Ricketts.
10. Visits to Manufactories.

SPECIAL COURSE IN AGRICULTURE.

FIRST YEAR.

FIRST TERM.—1. Algebra. 2. Geometrical Problems. 3. Inorganic Chemistry. 4. Physiology. 5. Analytical Chemistry.

SECOND TERM.—1. Geometry. 2. Coloring and Topographical Drawing. 3. Analytical Chemistry. 4. Book-keeping. 5. Zoölogy.

THIRD TERM.—1. Trigonometry. 2. Mapping. 3. Analytical Chemistry. 4. Botany. 5. Farm Accounts.

SECOND YEAR.

FIRST TERM.—1. Surveying. 2. Projections. 3. Physics. 4. Care and Feeding of Domestic Animals. 5. Systematic Agriculture. 6. Analytical Chemistry.

SECOND TERM.—1. Navigation and Nautical Astronomy. 2. Architectural Drawing. 3. Physics. 4. Geology. 5. How Crops Grow.

THIRD TERM.—1. Leveling and Road-Making. 2. Machine Drawing. 3. Meteorology. 4. Botany. 5. How Crops Feed.

Composition and Declamation throughout the course.

The hours of lectures or recitations are either three or four each day; besides work in the Chemical Laboratory, and in the Draughting Room.

Students who pass their regular examinations in the above subjects will, at the close of their course, receive certificates of their attainments. And at the end of two or more years further, if they shall have pursued practical agriculture on a farm, and shall then pass satisfactory examinations in prescribed subjects on Agricultural principles and practice before a Board of Examiners of the Scientific School, they shall receive Diplomas in Agriculture.

EXAMINATIONS.

The classes in both departments are examined at the close of each term. These examinations are partly oral and partly written, and have an important bearing upon the standing of the student in his class.

Unexpected examinations at irregular intervals are held at the discretion of each instructor. The object of these examinations is to cultivate the habit of considering the relations of each day's work to what has been done before, and to stimulate effort on the part of each student to gain a comprehensive knowledge of the subjects studied.

At the end of the first and third terms, the examinations of the classes of the Scientific section are held in the presence of the Board of Visitors, who then make their semi-annual visits to the Institution.

At the end of the third term each member of the Graduating Class of the Scientific section is required to present a thesis on some scientific subject, a copy of which is written out upon paper suitable for binding, and deposited in the College Library.

The final examination of the Graduating Classes is held four weeks before Commencement, from which time they are subject to such duties as are required for their preparation for Commencement.

Students who receive conditions at the June Examinations must report at College prepared to be examined upon the whole of each of the subjects on which they have conditions, at 10 A. M. on the Tuesday before College opens, in September.

GRADUATION.

To all members of the Graduating Class of the Classical Department, in full standing, the Trustees grant diplomas conferring the Academic degree of Bachelor of Arts.

To all members of the Graduating Class of the Scientific Department, in full standing, the Trustees grant diplomas conferring the Academic degree of Bachelor of Science.

To all members of the Graduating Class, in either Department, who have satisfactorily pursued special courses of study, a certificate is granted stating the studies pursued and the attainments made.

To those students who have pursued satisfactorily the studies of the first two years of the Scientific Course, and who desire to leave at that time, a special certificate is granted by the Faculty.

DEGREES AND POST-GRADUATE STUDIES.

The degrees of A.M. and M.S. are no longer given "in course," but only for work done.

The Faculty will recommend for the degree of Master of Arts or Master of Science candidates otherwise properly qualified, who, after taking the appropriate Bachelor's degree—

1. Shall pursue for at least one year at Rutgers College a course of liberal and non-professional study, approved by the Faculty, and shall, beside the term examinations, pass a thorough examination on that course and present a thesis on some topic connected with it; or,

2. Who, not less than three years after taking the Bachelor's degree at Rutgers College, shall make application for the Master's degree, presenting at the same time a certificate of graduation from a Theological Seminary, a Law School or a Medical School, or of admission to the practice of Law or Medicine; or,

3. Satisfactory evidence of successful labor in that field of education or literature which may have been permanently chosen; or,

4. In case of Bachelor of Science, satisfactory evidence of successful professional work actually done and advanced professional studies prosecuted.

The degrees of Ph.D. and D.Sc., may be conferred upon resident graduates of the College who shall pursue for two years prescribed courses of study under the direction of the Faculty.

The conditions will be made known on application.

The degree of Civil Engineer is a professional one, and is, on application, conferred upon graduates of the College who have taken the degree of Bachelor of Science, and subsequently have passed three years in the practice and study of engineering, with results satisfactory to the Faculty.

The applicant is required to furnish a statement of the work upon which he has been engaged, and to present a thesis or discussion of some engineering work which he has done. The application and thesis must be presented to the Secretary of the Faculty at least one month before Commencement.

REGULATIONS.

Morning prayers are attended in the College Chapel each morning, except Saturday and Sunday, at 8:40 o'clock.

The recitation hours extend from 9 o'clock A. M. to 12 M., or 1 o'clock P. M., during five days of the week.

A Bible-Class is held Sabbath morning in the College Chapel at 9:30 o'clock. All students are required to attend it.

A sermon is preached every Sabbath morning in the College Chapel at 10:30 o'clock. Students are required to be present.

They are expected, also, to attend public worship in the afternoon or evening, at such place as their parents or guardians may direct.

No student is allowed to leave the city during term time without permission from his Division Officer.

Recitations (except in case of "Electives") are marked on a scale of 100, and the average standing of each student is made up at the end of each term, and sent to his parent or guardian. A mark at examination counts as much as one-third of the term's work up to the time of examination.

If the grade of a student in any term falls below 60 per centum of the maximum in one of his studies, he is conditioned in that study, and must be re-examined therein.

If the average of any student in any study at any time falls below 60 per centum of the maximum grade, his case must be acted on as the Faculty shall deem necessary.

If any student's average grade in any term falls below 60 per centum of the maximum, he loses his standing in his class, and is required to fall back a year in the course. If his work is not satisfactory after a month's trial here, he is dismissed from College.

Marks given in ELECTIVE work will not enter into the computation of grade; and the only official record of work done in Electives will be the announcement, at the end of each term, in each student's report, that he has "failed" or "passed," or "passed with honor," in each of his elective courses.

If any student is found to be notably deficient in his daily recitations, or at the examination in any of his studies, his case is reported to the Faculty, and such action by way of discipline is taken as may be deemed necessary.

No student can be promoted to an advanced class until all his deficiencies are made up; and if he fails to make up all his deficiencies *before the opening of the College year*, he is required to go back a year in his course. Examinations for making up such deficiencies are held *on the Tuesday before the opening of the Autumn Session in September, at 10 A. M.*

College Expenses.

FEES.

Tuition, per annum,	$75 00
Incidentals—Janitor, Fuel, etc., per annum,	8 00
Reading Room, per annum,	2 00
Admission Fee,	5 00
Graduation Fee,	7 50
Analytical Chemistry, extra, per term,	15 00

Of the above expenses, the admission fees are payable, on entrance, to the College Treasurer; the incidental expenses are payable at the beginning of the first term, in September; of the tuition fees, one-third, viz., $25, is payable within ten days after the beginning of each term. All checks should be made payable to the Treasurer of Rutgers College.

Students in Analytical Chemistry are charged $15 additional per term, for chemicals and use of Laboratory, which amount must be paid within ten days after the beginning of the term. They are also expected to provide themselves, at their own expense, with the necessary sets of apparatus, which may be obtained from the regular apparatus dealers, or from the Laboratory Supplies department. These sets are retained through the year, but at the end of it, if the owners do not wish to keep them, they will be purchased at a fair price. If proper care has been exercised, a small discount only (about 10 per cent.) from the original cost will be made. All breakage will be charged in full.

BOARD.

Board, with furnished room, can be obtained in New Brunswick at the present time for $4 to $7 per week; board without rooms for $3 to $5 per week. Students having the ministry in view may obtain rooms in Hertzog Hall, in the Theological Seminary, free of charge. These rooms are heated and lighted.

The Faculty are empowered to pass such regulations relative to the number of boarders in each house as they think proper; and students shall board only at such places as are approved by them.

By combining in clubs, students are able to reduce somewhat their expense for board.

Free scholarships and pecuniary assistance may be given to young men of approved character and ability, whose family circumstances are such as to make this assistance necessary. No deserving student who has shown perseverance and capacity is allowed to give up his course for lack of assistance.

Beneficiary Aid.

1. Van Benschoten Fund.

This fund, the gift of the Rev. Elias Van Benschoten, in 1814, amounting to $20,813, was given in trust jointly to the General Synod of the Reformed Church and the Trustees of Rutgers College, to aid in the education of indigent students for the ministry. The students who enjoy the benefits of this fund are appointed by the Trustees of the College on the nomination of the General Synod of the Reformed Church, and receive $150 annually.

2. Knox Fund.

This fund, consisting of $2,000, was given by Mrs. Rebecca Knox, of Philadelphia, in 1815, to the Trustees of Rutgers College, the income from it to be expended for the support of one student in the Theological Seminary.

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William H. Smock, of Marlboro, N. J., left by his will, to the Trustees of Rutgers College, the sum of $500, to be invested

as a fund, the interest of which should be used to aid in the education of young men for the ministry. This legacy was received in 1859, and has been since that time duly employed for the purpose named.

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In 1865, the Trustees of Rutgers College received from the executor of the will of William Mandeville, of New York City, the sum of $2,000; said sum to be invested, and the income thereof to be applied to the support of a theological student in the College.

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Abraham Voorhees, of Franklin Park, N. J., bequeathed by his will $26,000 to the Trustees of Rutgers College, the income of which is to be expended in aiding worthy young men who are candidates for the ministry, while pursuing their studies in Rutgers College. A grant of $200 per annum is made to the students thus receiving aid.

6. Free State Scholarships.

The law of the State of New Jersey granting to the Scientific Department of Rutgers College the Agricultural College Endowment provides for the education of forty State students free of expense for tuition. These scholarships are distributed among the counties in proportion to their population, and the appointments to fill vacancies are made by the County Superintendent. The appointment gives the right to a course of instruction of four years in Rutgers Scientific School, on successfully passing the entrance examinations.

7. Board of Education.

The Board of Education of the Reformed Church grants aid to young men preparing for the ministry in the denomination.

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Prizes and Honors.

In every case where it is expected that a prize will be awarded for work done, it is distinctly announced that unless in the opinion of the examiners the work submitted is of such excellence as to merit a prize or prizes, no prize will be awarded.

All prizes and honors are open equally to members of the Classical and Scientific Departments, except in cases where prizes are specifically limited to one department by the donor. Each competitor for a prize must sign a written declaration that the essay or other work offered by him is his original and unaided work. The essays are to be written on a paper of a prescribed kind, and the successful essay is to be deposited in the College Library, before the writer is entitled to the prize. They are as follows:

1. Suydam Prize for Composition.

This prize, the gift of James Suydam, Esq., is a gold medal of the value of thirty dollars, or that sum in money, and is to be given to the member of the Senior Class who shall write the best English Composition on the subject assigned to the class by the Professor of Rhetoric. Competitors must hand in their compositions on or before April 18th. The student to whom the prize is awarded must copy his composition upon paper furnished by the College, and present it for preservation in the Library before he can receive the prize.

Subject for 1887: "Shakespeare's Mental Philosophy." The prize was awarded to Asa Wynkoop, of Catskill, N. Y.

Subject for 1888: "Mnemonic Systems: are they a Benefit or an Injury to the Mind?"

2. Suydam Prize in Natural Science.

This prize, the gift of James Suydam, Esq., is a gold medal of the value of thirty dollars, or that sum in money, and is to be awarded to the member of the Senior Class who shall have made the greatest attainments in Natural Science. The examination is upon all the subjects of Natural Science in the College course, and is conducted by the Professors in those subjects. The questions and answers are required to be written.

The prize was in 1887 awarded to William P. Merrill, of New Brunswick.

3. Brodhead Classical Prize.

This prize is the gift of Rev. Dr. Jacob Brodhead and his son, J. Romeyn Brodhead, LL.D. It is the interest on $500, *i. e.*, thirty dollars, to be given to the best Senior Classical scholar on the following conditions:

First. "That those who offer themselves as candidates for it shall be subjected to a special examination, at a time to be fixed by the Faculty near to the close of the Senior year."

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Prizes and Honors.

In every case where it is expected that a prize will be awarded for work done, it is distinctly announced that unless in the opinion of the examiners the work submitted is of such excellence as to merit a prize or prizes, no prize will be awarded.

All prizes and honors are open equally to members of the Classical and Scientific Departments, except in cases where prizes are specifically limited to one department by the donor. Each competitor for a prize must sign a written declaration that the essay or other work offered by him is his original and unaided work. The essays are to be written on a paper of a prescribed kind, and the successful essay is to be deposited in the College Library, before the writer is entitled to the prize. They are as follows:

1. Suydam Prize for Composition.

This prize, the gift of James Suydam, Esq., is a gold medal of the value of thirty dollars, or that sum in money, and is to be given to the member of the Senior Class who shall write the best English Composition on the subject assigned to the class by the Professor of Rhetoric. Competitors must hand in their compositions on or before April 18th. The student to whom the prize is awarded must copy his composition upon paper furnished by the College, and present it for preservation in the Library before he can receive the prize.

Subject for 1887: "Shakespeare's Mental Philosophy." The prize was awarded to Asa Wynkoop, of Catskill, N. Y.

Subject for 1888: "Mnemonic Systems: are they a Benefit or an Injury to the Mind?"

2. Suydam Prize in Natural Science.

This prize, the gift of James Suydam, Esq., is a gold medal of the value of thirty dollars, or that sum in money, and is to be awarded to the member of the Senior Class who shall have made the greatest attainments in Natural Science. The examination is upon all the subjects of Natural Science in the College course, and is conducted by the Professors in those subjects. The questions and answers are required to be written.

The prize was in 1887 awarded to William P. Merrill, of New Brunswick.

3. Brodhead Classical Prize.

This prize is the gift of Rev. Dr. Jacob Brodhead and his son, J. Romeyn Brodhead, LL.D. It is the interest on $500, *i. e.*, thirty dollars, to be given to the best Senior Classical scholar on the following conditions:

First. "That those who offer themselves as candidates for it shall be subjected to a special examination, at a time to be fixed by the Faculty near to the close of the Senior year."

Second. "That the subject of the examination be a passage or play of some Classical author (not included in the College programme of studies), to be selected by the Classical Professors, and to be announced at least one month before the time fixed for the examination."

Third. "A subject for an essay shall be announced at the same time, and the essay shall be given in on the day of examination."

Fourth. "Both the examination and the essay shall be taken into account in the adjudication of the prize. A law copy of the essay of the prize man shall be handed in by him before the medal is put into his hands, to be preserved among the archives of the College."

Subject for examination for 1888—Books I., II., III. of Aristotle's Politics. Thesis for essay, to be written in Greek, "The Political Status of Women in the Republic of Plato."

4. Bradley Mathematical Prize.

This prize is given by Hon. Joseph P. Bradley, LL.D., and consists of a valuable Mathematical work, which is to be bestowed on the student of the Senior Class who shall present the best solution of a set of Mathematical problems to be proposed to the class by the Professor of Mathematics before the close of the second term. The prize was, in 1887, awarded to I. Lewis Winckler, of New Brunswick.

5. Myron W. Smith Prize.

These prizes were founded by Lyndon A. Smith, M.D., of Newark, in the name of his son, Adjutant Myron W. Smith, who was a graduate of the College, and who gave his life in the late war to the cause of his country. They consist of the interest of $500, proportionately appropriated to two medals, one of gold and the other of silver, which are to be awarded respectively to the best and second-best speakers of the Sophomore Class. Only those students who shall have pursued, in the College, the regular

studies of the classical or a full scientific course from the beginning of the Freshman year, shall be allowed to contend for these prizes.

The competition for these medals shall take place before a committee of the Faculty, when the best and second-best speakers shall be selected, to whom the medals shall be awarded, and six others shall receive honorable mention in their order of excellence. The medals shall be presented at Commencement.

In 1887, the first of these prizes was awarded to GEORGE B. THOMPSON, of Colt's Neck; the second prize to WILLIAM W. HALLOCK, of Brooklyn, N. Y., and MAURICE J. THOMPSON, of New Brunswick.

6. TUNIS QUICK PRIZE IN SPELLING AND ENGLISH GRAMMAR.

This prize, the gift of P. Vanderbilt Spader, Esq., of New Brunswick, is the income of $300, at 6 per centum, and is to be presented to that member of the Freshman Class, Classical or Scientific, who shall pass the best examination in Spelling and English Grammar.

The examination is to be conducted in writing by the Professor of English Literature, at as early a day as convenient in the second College term, and under such regulations as the Faculty may from time to time establish.

The prize may be withheld from any and all papers offered, either for want of merit or for failure of proper competition. In case the prize be not awarded in any year, it is to be offered one year later to the members of the same class, on the same conditions as at first.

All regulations as to time, manner and conditions of awarding the prize are subject to change by the Board of Trustees.

It was awarded, in 1887, to HOWARD GOFF, of East Creek.

7. PETER SPADER PRIZES IN MODERN HISTORY.

These prizes, the gift of P. Vanderbilt Spader, Esq., are two in number, the income of $400 and $300, respectively, at 6 per

centum, and are to be awarded to those members of the Sophomore Class, Classical or Scientific, who shall present the best essays on some subject in Modern History, selected by the Professor of History, with the approval of the Faculty.

The subject is to be announced at the close of the Freshman year, and the competing essays are to be handed in on or before the last Monday in May of the Sophomore year.

The Committee annually appointed by the Faculty may decline to award these prizes, or either of them, for want of merit in the essays, or for failure of proper competition. In case the prizes be not awarded in any year, they are to be offered one year later to the members of the same class, on the same conditions as at first.

All regulations as to time, manner and conditions of awarding the prizes are subject to change by the Board of Trustees.

Subject for 1887: "The Various Motives to Colonization of the earliest settlers of the United States." The first prize was awarded to MAURICE J. THOMPSON, of New Brunswick; the second to WILLIAM C. SEBRING, of Saugerties, N. Y.

Subject for 1888: "The History of Slavery in New York, New Jersey and Pennsylvania."

8. APPLETON MEMORIAL PRIZE IN MORAL PHILOSOPHY.

This prize was founded by a gift of $500, from the Rev. Samuel E. Appleton, D.D., in the name of his mother, Mrs. Elizabeth Appleton. It consists of thirty dollars, the interest of the above sum, and will be given "to the member of the Senior Class who shall pass the best examination in Moral Philosophy."

Subject for 1887: A written and an oral examination upon Calderwood's Hand-book of Moral Philosophy. The prize was awarded to WILLIAM P. MERRILL, of New Brunswick.

Subject for 1888: The same.

9. John Parker Winner Memorial Prize in Mental Philosophy.

This prize consists of twenty-five dollars, given by John Winner, Jr., and his wife, in memory of their deceased son, John Parker Winner. It will be open to competition for students in both the Classical and Scientific Sections who are pursuing the study of Mental Philosophy, and will be bestowed on the one who shall pass the best examination on some work assigned by the Professor of Metaphysics.

Work for 1887: Berkley's Principles of Knowledge, Dr. Krauth's Edition, pages 72–122, and 193–281.

The prize in 1887 was awarded to Sherman Grant Pitt, Crary's Mills, N. Y.

Work for 1888, the same as for 1887.

10. Wm. H. Van Doren Prize for the best Essay on Christian Missions.

This prize consists of twenty dollars, the gift of the Rev. William H. Van Doren, D.D. It is open to competition for members of the Senior and Junior Classes in both sections; and for members of the Theological Seminary. In 1887 it was awarded to Thurston W. Challen, of New Brunswick, of the Class of '87.

11. Junior Exhibition.

Eight members of the Junior Class are chosen each year, in equal numbers from the Peithessophian and Philoclean Literary Societies, who deliver original speeches at an exhibition held on the Tuesday evening preceding Commencement. The selection is made by a committee of three persons, of whom one is chosen by each Society and a third by the Faculty, and is based upon relative excellence as writers and speakers.

This prize, the gift, in 1887, of Ralph N. Perlee, Esq., was awarded to W. B. Tomkins, of East Orange, N. J.

12. Hart Prize in English Literature.

A prize of twenty-five dollars is offered to the members of the Sophomore Class for the best essay upon a subject in Literature; the theme is assigned by the Professor of that Department, and the prize is awarded by a committee appointed by him.

Subject for 1887: "Goldsmith." This prize was awarded to Maurice J. Thompson, of New Brunswick.

Subject for 1888: "Cowper."

13. The Bussing Prizes for Ex Tempore Speaking.

Mrs. Ann Bussing, of New York City, has given to the College $1,000, the income of which (fifty dollars per annum) is to be expended each year for books, which shall be selected by the President of the College, and given as follows: The First Prize, of thirty dollars, to that member of the Senior Class who shall prove himself to be the best extemporaneous speaker; the Second Prize, twenty dollars, to the second-best extemporaneous speaker of the Senior Class. The prizes are to be awarded by the Faculty of the College, or by a committee whom they shall name, and shall be awarded after a public debate to be held in the latter part of the College year. In awarding the prizes, "strict attention shall be given to logical and forcible presentation of thought, full and accurate information as to matters of fact, and grace and effectiveness in delivery." For the sake of training students in the clear expression of intelligent thought upon matters of public interest, each class has an exercise in *ex tempore* speaking twice in each term. The subject is announced to the class, and, after five minutes for thought, the members of the class discuss the subject or debate the question before a committee.

The First Prize was awarded, in 1887, to William P. Merrill, of New Brunswick; the Second to William S. Bishop, of East Orange.

14. Van Vechten Prize—Essay on Christian Missions.

A. V. W. Van Vechten, Esq., of New York, has founded, in honor of his mother, the late Louisa Van Vechten, and his father, Rev. Dr. Samuel Van Vechten, a prize of sixty dollars, by the gift of $1,000, the prize "to be given annually to that student of Rutgers College who shall be adjudged by the Faculty of the Theological Seminary of the Reformed Church of America, at New Brunswick, to have presented an article, original with himself, and the best submitted—the most conclusive and inspiriting to strengthen faith in and love for Foreign Missions." Essays to be presented on or before May 1st of each year.

The prize, in 1887, was awarded to Herbert G. Sharpley, of Mitchellville, Iowa.

15. Liebig Prize for Best Chemical Thesis.

A prize of $25, or equivalent value in books, will be given to that student of the Chemical Section of the Graduating Scientific Class whose thesis, embodying the results of his study and Laboratory work, shall be adjudged to be worthy of the prize.

16. Honorable Mention for Work outside the Course done Without Reference to a Prize.

For the encouragement of independent reading and study and original investigation, under the direction of the Faculty, honorable mention is made of students who give evidence of thoroughness in such work, and pass a satisfactory examination.

Mr. Erastmus Ames Whitenack, of the Class of 1890, receives honorable mention for work done and examinations passed on "Fragmenta Epicorum Græcorum" with the Scholia; Battle of the Frogs and Mice; Iliad, Books V., VI., XXIII.; Two Hundred pages of Lucian; Aristophanes' Plutus.

Library and Museum.

1. Libraries.

The Library of the College is open for consultation during each term, as follows: On Mondays, Tuesdays, Wednesdays, Thursdays and Fridays, from 8 to 8:40 A. M., and from 12 M. to 12:30 P. M., and from 2 P. M. to 4:30 P. M.; on Saturdays from 9 A. M. to 12:30 P. M., and from 2 to 4:30 P. M. Students are allowed free access to the books, and are encouraged to become familiar with the proper methods of using a library for literary work.

In 1887, P. Vanderbilt Spader, Esq., of New Brunswick (a member of the Class of 1849), gave to the College his personal library, valued at $15,000, and consisting of about 5,000 books, among them many very valuable art volumes, and collections especially rich in State and local history, and in books of reference.

In addition to this generous gift, there have been added to the Library during the past year some 1,500 volumes, chiefly from the income of the Pruyn Fund (given by General Robert C. Pruyn, of Albany, N. Y.), and from the gift of Robert F. Ballantine, Esq., of $500 for books.

By the gift of a permanent fund of $1,000 from James Suydam, Esq., supplemented by gifts from other sources, the Library is supplied with the leading periodical publications in the various departments.

By the courtesy of the Theological Seminary of the Reformed Church, the Sage Library of more than 40,000 volumes is opened to the students of Rutgers for consultation; and under certain limitations books are drawn from it as well. It is within three minutes' walk of the College campus.

2. Museum and Apparatus.

The Trustees solicit contributions from the friends of the College to the collections of the Museum. It is their wish to increase greatly the present valuable collections by additions in all departments. Donations of specimens illustrating Geology, Mineralogy, Natural History, Numismatics and Antiquities, and the Industrial Arts, are earnestly requested. Ample rooms are provided in the new Geological Hall for the proper preservation and display of such specimens. By the kindness of numerous friends, suitable cases have been provided to receive the collections which the College already possesses, and they are now being arranged as rapidly as circumstances will allow.

The apparatus of the College for illustrating the various branches of science is extensive and serviceable. It has been obtained as the wants of the classes demanded, and comprises many recent additions to the Chemical and Philosophical apparatus. The students in Analytical Chemistry are provided with the requisite facilities for making analyses. The arrangement for these departments in the buildings recently erected are of the most ample and convenient description.

REGISTER.

1. SOPHOMORE ORATORS (CLASS OF 1889).

GEORGE B. THOMPSON,	Colt's Neck.
WILLIAM W. HALLOCK,	Brooklyn, N. Y.
MAURICE J. THOMPSON,	New Brunswick.

The following are named in the order of their appointment according to merit:

JAMES H. KEELING,	Utica, N. Y.
CHARLES MAAR,	Poughkeepsie, N. Y.
HARVEY LOSEE,	Upper Red Hook, N. Y.
CLARENCE G. SCUDDER,	Vellore, India.
CHARLES J. SCUDDER,	Saugerties, N. Y.

2. JUNIOR EXHIBITION.

ORATORS FOR 1887.

Peithessophian Society.	*Philoclean Society.*
E. M. ALDEN, Metuchen.	F. S. WILSON, Millstone.
O. M. VOORHEES, Bedminster.	C. S. WYCKOFF, Woodhaven, L. I.
W. B. TOMKINS, East Orange.	S. G. PITT, Crary's Mills, N. Y.
F. L. MAYHAM, Belleville.	W. J. LANSLEY, Elizabeth.

3. GRADUATING EXERCISES, JUNE.

HONORS.

WILLIAM P. MERRILL, New Brunswick,	*Valedictory.*	
ASA WYNKOOP, Catskill, N. Y.,	*Latin Salutatory,*	1st Honor.
WILLIAM SAMUEL BISHOP, East Orange,	*Philosophical Oration,*	3d Honor.
STEPHEN DU BOIS DEMAREST, New Brunswick,	*Scientific Oration,*	4th Honor.
ASA WYNKOOP, Catskill, N. Y.,		Rhetorical Honor.

ORATIONS.

F. J. SAGENDORPH, Hudson, N. Y.
H. J. MARCH, New Brunswick.
T. W. CHALLEN, New Brunswick.
W. H. BRODIE, Geneseo, N. Y.
A. B. HERMAN, Warsaw, N. Y.
H. H. PALMER, JR., New Brunswick.
H. TAIT, Metuchen.
H. A. SMITH, Somerville.
I. L. WINCKLER, New Brunswick.
B. M. TREMPER, Kingston, N. Y.
F. A. PATTISON, Metuchen.

MASTER'S ORATION.

REV. WILLIAM P. BRUCE, '84, - - - - - - Greenville, N. J.

4. PRIZES AWARDED, 1886.

GENERAL PRIZES.

Van Vechten Prize for Essay on Foreign Missions, HERBERT G. SHARPLEY.
Van Doren Prize for Essay on Christian Missions, THURSTON W. CHALLEN.

SENIOR PRIZES.

Appleton Prize for Moral Philosophy, - - -	WILLIAM P. MERRILL.
Suydam Prize for Composition, - - -	ASA WYNKOOP.
Suydam Prize for Natural Science, - - -	WILLIAM P. MERRILL.
Bradley Mathematical Prize, - - - - -	I. LEWIS WINCKLER.
Bowser Prize for Best Thesis, - - - - -	I. LEWIS WINCKLER.
Bussing Prize for Extemporaneous Debate, 1st, -	WILLIAM P. MERRILL.
Bussing Prize for Extemporaneous Debate, 2d, -	WILLIAM S. BISHOP.
Best Chemical Thesis, - - - - - -	HARRY A. SMITH.

JUNIOR PRIZES.

John Parker Winner Memorial Prize for Mental Philosophy, - - - - - - - - -	SHERMAN G. PITT.
Perlee Junior Orator Prize, - - - - -	WILLIAM B. TOMKINS.

SOPHOMORE PRIZES.

Myron W. Smith Prize for Declamation, 1st, -	GEORGE B. THOMPSON.
Myron W. Smith Prize for Declamation, 2d, -	WILLIAM W. HALLOCK. MAURICE J. THOMPSON.
Hart English Literature Prize, - - - - -	MAURICE J. THOMPSON.
Spader Prize for Modern History, 1st, - -	MAURICE J. THOMPSON.
Spader Prize for Modern History, 2d, - - -	WILLIAM C. SEBRING.

FRESHMAN PRIZES.

Quick Prize for Grammar and Spelling, - - HOWARD GOFF.

Sloan Prizes for Best Preparation (awarded September, 1887):

First Prize—CHARLES SEWARD JOHNSON; prepared at the Oswego State Normal School, N. Y.

Second Prize—HARRY LOCKWOOD; prepared at the Grammar School, New Brunswick.

5. CLASS-DAY EXERCISES.

IN THE CHAPEL.

ORATION, - - - - - - - -	A. WYNKOOP, Catskill, N. Y.
POEM, - - - - - - - -	W. P. MERRILL, New Brunswick.
CLASS HISTORY, - - - - - -	B. M. TREMPER, Kingston, N. Y.
CLASS PROPHECY, - - - - -	F. J. SAGENDORPH, Hudson, N. Y.
PRESENTATION OF CLASS MEMENTOES, -	F. A. PATTISON, Metuchen.
ADDRESS TO UNDERGRADUATES, -	W. S. BISHOP, East Orange.

ON THE CAMPUS.

IVY ORATION, - - - - - - -	W. S. BISHOP, East Orange.
IVY ODE, - - - - - - - -	G. A. BALLANTINE, Newark.
PIPE ORATION, - - - - - -	W. J. BRODIE, Geneseo, N. Y.
ADDRESS TO THE PRESIDENT, - -	I. L. WINCKLER, New Brunswick.

6. ALUMNI ASSOCIATION.

OFFICERS FOR THE YEAR 1887–1888.

GARRET D. W. VROOM, Class of '62, - - - - -	President.
WILLIAM S. BANTA, Class of '44, - - - - -	Vice-Presidents.
HON. C. T. COWENHOVEN, Class of '62, - - -	
J. R. HOAGLAND, Class of '52, - - - - -	
RICHARD WYNKOOP, Class of '49, - - - - -	
REV. P. T. POCKMAN, Class of '78, - - -	
REV. JAMES S. N. DEMAREST, Class of '72, - -	Treasurer.
PROF. LOUIS BEVIER, JR., Class of '78, - - -	Secretary.
IRVING S. UPSON, A.M., Class of '81, - - -	Biographer.
H. A. NEILSON, Class of '73, - - - - -	Inspectors of Election of Alumni Trustees.
J. BAYARD KIRKPATRICK, Class of '66, - - -	
FRED. P. HILL, Class of '83, - - - - -	

ORATORS FOR 1887.

ROBERT VOORHEES, Class of '41, - - - - -	Primarius.
WARREN HARDENBERG, Class of '52, - - -	Secundus.

VEDDER LECTURERS.

REV. JACOB COOPER, D.D., D.C.L., 1888, - - -	New Brunswick.
REV. ALAN D. CAMPBELL, 1889, - - - -	Castleton, N. Y.

CATALOGUES.

Former students of the College, whether graduates or not, are earnestly requested to keep the College informed of any change in their address or occupation, of works published, offices held, etc., both to facilitate the sending of the annual catalogue, and to furnish material for general catalogues, when printed. Catalogues of the College, etc., will be sent to alumni or friends of the College who send to the Secretary their addresses, for this purpose.

It is desired to secure for the Library a complete set of all the publications issued by the College or relating to it, or written or compiled by any one in connection with it, whether periodical or occasional. A complete collection of *Rutgersensia* would be of great value to the College and its friends.

QUINQUENNIAL (GENERAL) CATALOGUE.

Acting under a resolution of the Board of Trustees, the Librarian of the College, IRVING S. UPSON, A.M., collected materials for a General Catalogue, which was published in April, 1886, and includes the names of all the alumni and students of the College to the Class of 1885.

Alumni and friends are requested to notify the Librarian of the death of any of the alumni, of changes of residence, etc., and of any errors, however slight, that may have been detected in the General Catalogue of the Alumni.

RUTGERS COLLEGE GRAMMAR SCHOOL.

E. T. TOMLINSON, A.M., HEAD-MASTER.

[NUMBER OF STUDENTS LAST YEAR, ABOUT 150.]

This School, which is under the control of the Board of Trustees and is in intimate relation with the College, affords excellent facilities for preparing boys to enter the Classical and Scientific Departments of the College. Special care is taken to drill the pupils thoroughly in the principles of Mathematics, the Languages, Natural Sciences and kindred subjects. Its work, however, is not restricted to candidates for College. It has courses of study adapted to fit young men for business life, or to give them a general education as good as the best academies offer. The friends of the College, who have sons or wards to educate, will do well to examine carefully into its merits. Full information will be given upon application to the Head-Master, E. T. TOMLINSON, A.M., New Brunswick, N. J.

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CATALOGUE

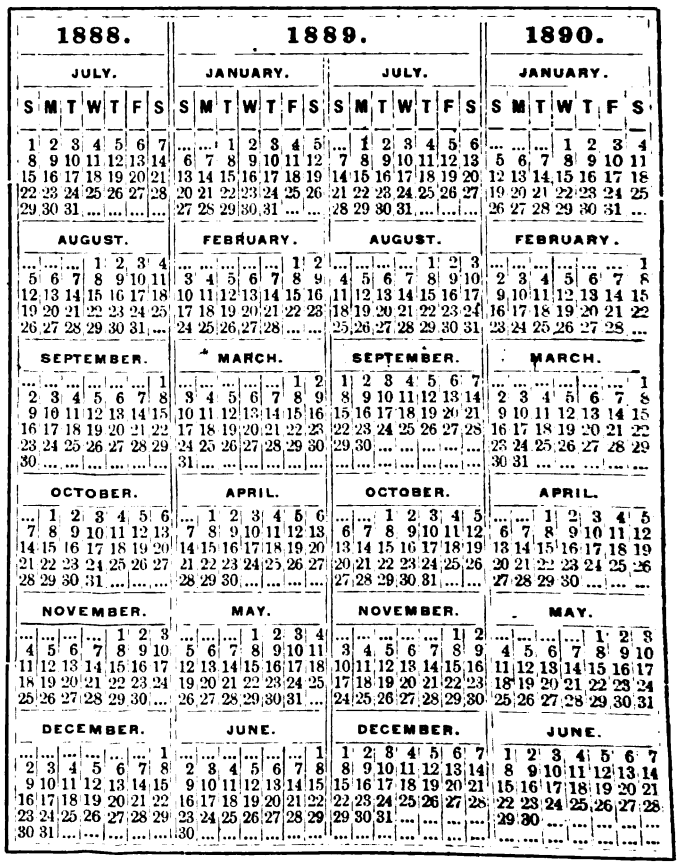
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RUTGERS COLLEGE,

AT

NEW BRUNSWICK, N. J.

1888-'89.



1888.

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DECEMBER.

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1890.

JANUARY.

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FEBRUARY.

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MARCH.

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APRIL.

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MAY.

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JUNE.

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CATALOGUE

OF THE

OFFICERS AND STUDENTS

OF

RUTGERS COLLEGE

AT

NEW BRUNSWICK, N. J.

1888-9.

CHARTERED A. D. 1766.

TRENTON, N. J.:
THE JOHN L MURPHY PUBLISHING CO., PRINTERS.
1888.

CALENDAR.

1888.

SEPTEMBER 18,	Tuesday: Examinations for admission.
SEPTEMBER 19,	Wednesday: First Term begins. Recitations.
OCTOBER 6,	Saturday: Sloan Entrance Prize Examinations.
OCTOBER 30,	Tuesday: Stated Meeting of the Board of Trustees, 2 P. M.
NOV. 28–DEC. 3,	Thanksgiving Recess.
DECEMBER 13-19,	Examinations. Wednesday: First Term ends.
DEC. 19–JAN. 3,	Christmas Vacation.

1889.

JANUARY 3,	Thursday: Second Term begins. Recitations.
JANUARY 31,	Day of Prayer for Colleges.
FEBRUARY 22,	Washington's Birthday.
MARCH 5,	Tuesday: Stated Meeting of the Board of Trustees, 2 P. M.
MAR. 27–APR. 2,	Examinations. Tuesday: Second Term ends.
APRIL 3-10,	Spring Vacation.
APRIL 10,	Wednesday: Third Term begins. Recitations.
MAY 20, 21,	Senior Final Examinations.
JUNE 11–14,	Examinations of Three Lower Classes.
JUNE 14,	Friday: Reading of Theses by Scientific Seniors.
JUNE 16.	Sunday: Baccalaureate Sermon, by Rev. RICHARD S. STORRS, D.D., LL.D., 7:30 P. M.
JUNE 17, 18,	Monday, 10 A. M., and Tuesday: Examinations for admissions.
JUNE 17,	Monday: Class-Day Exercises, 3 P. M.
JUNE 18.	Tuesday: Commencement Meeting of the Board of Trustees, 10 A. M. Meeting of the Alumni, 10 A. M. Exercises of the Literary Societies, 3:30 P. M. Junior Exhibition, 8 P. M.
JUNE 19,	Wednesday: 119th Annual Commencement, 10 A. M.
JUNE 19–SEPT. 17,	Long Vacation.
SEPTEMBER 17,	Tuesday: Examinations for admission, 10 A. M. Examinations for removal of June Conditions, 10 A. M. All conditioned students must be present.
SEPTEMBER 18,	Wednesday: First Term begins. Recitations.
OCTOBER 5,	Saturday: Sloan Entrance Prize Examinations.
OCTOBER 29,	Stated Meeting of the Board of Trustees, 2 P. M.
NOV. 27–DEC. 2,	Thanksgiving Recess.
DECEMBER 12-18,	Examinations. Wednesday: First Term ends.
DEC. 18–JAN. 2,	Christmas Vacation.

1890.

JANUARY 2,	Thursday: Second Term begins. Recitations.

TRUSTEES.

1888-9.

EX-OFFICIO.

HIS EXCELLENCY ROBERT S. GREEN, ... ELIZABETH.
Governor of the State of New Jersey.

HON. MERCER BEASLEY, LL.D., ... TRENTON.
Chief Justice of the State of New Jersey.

HON. JOHN P. STOCKTON, ... TRENTON.
Attorney-General of the State of New Jersey.

BY ELECTION.

Names.	*Address.*	*Date of Election.*
MERRILL EDWARDS GATES, LL.D., L.H.D., *President of the College.*	NEW BRUNSWICK,	March 7, 1882.
REV. T. E. VERMILYE, D.D., LL.D.,	New York City, 15 West 56th St.	July 24, 1849.
HON. JOHN HOPPER,	Paterson,	July 22, 1851.
MAURICE E. VIELE, ESQ.,	Albany, N. Y.,	July 27, 1853.
REV. DAVID D. DEMAREST, D.D.,	New Brunswick,	April 13, 1858.
HON. JOSEPH P. BRADLEY, LL.D.,	Washington, D. C.,	June 29, 1859.
HENRY L. JANEWAY, ESQ.,	New Brunswick,	April 8, 1862.
STAFFORD R. W. HEATH, ESQ.,	Newark,	April 11, 1866.
REV. TALBOT W. CHAMBERS, D.D.,	New York City, 70 West 36th St.	June 17, 1868.
REV. JOACHIM ELMENDORF, D.D.,	New York, 61 East 123d St.	April 14, 1869.
REV. PAUL D. VAN CLEEF, D.D.,	Jersey City,	April 14, 1869.
SAMUEL SLOAN, ESQ.,	New York City, 26 Exchange Place.	June 20, 1871.
HON. GEORGE C. LUDLOW,	New Brunswick,	June 17, 1873.
HON. WILLIAM A. NEWELL,	Olympia, W. T.,	June 17, 1873.
REV. ISAAC S. HARTLEY, D.D.,	Utica, N. Y.,	June 17, 1873.

Names.	*Address.*	*Date of Election.*
Rev. William Ormiston, D.D.,	New York City, 180 West End Ave.	June 20, 1876.
Rev. John Gaston, D.D.,	Passaic,	June 20, 1876.
Hon. Henry W. Bookstaver, LL.D.,	New York City, 14 East 67th St.	June 20, 1876.
Robert F. Ballantine, Esq.,	Newark,	June 20, 1876.
Rev. William Rankin Duryee, D.D.,	Jersey City,	March 5, 1878.
Rev. William J. R. Taylor, D.D.,	Newark,	June 18, 1878.
Rev. Abraham R. Van Nest, D.D.,	New York City,	Oct. 29, 1878.
William Clark, Esq.,	Newark,	Oct. 29, 1878.
Hon. George H. Sharpe,	Kingston, N. Y.,	March 4, 1879.
David Bingham, Esq.,	East Orange,	March 7, 1882.
Henry R. Baldwin, M.D.,	New Brunswick,	June 17, 1884.
Frederick Frelinghuysen, Esq.,	Newark,	June 16, 1885.
Ernest J. Miller, Esq.,	Albany, N. Y.,	June 16, 1885.
Hon. Jonathan Dixon,	Jersey City,	June 22, 1886.
James Neilson, Esq.,	New Brunswick,	June 22, 1886.
Rev. Roderick Terry, D.D.,	New York City, 169 Madison Ave.	June 22, 1886.
Tunis G. Bergen, Ph.D.,	Brooklyn, N. Y.,	Oct. 25, 1887.
Rev. Edward B. Coe, D.D.,	New York, 42 West 52d St.	Oct. 25, 1887.
Elbert B. Monroe, Esq.,	Southport, Conn.,	Oct. 25, 1887.
Rev. John B. Drury, D.D.,	New Brunswick,	Oct. 25, 1887.
Rev. James Le Fevre,	Middlebush,	June 19, 1888.

Rev. DAVID D. DEMAREST, D.D., ... New Brunswick.

Secretary of the Board.

JOHN C. ELMENDORF, Esq., ... New Brunswick.

Treasurer.

Office—71 Albany Street.

STATED MEETINGS OF THE BOARD.

Last Tuesday in October, at 2 o'clock P. M.
First Tuesday in March, at 2 o'clock P. M.
Tuesday before Commencement, at 10 o'clock A. M.

James Thomas, *Janitor.*

FACULTY.

MERRILL EDWARDS GATES, PH.D., LL.D., L.H.D.,
PRESIDENT,

THEODORE FRELINGHUYSEN *Professor of Moral Philosophy.*
President's House, College Campus.

GEORGE HAMMELL COOK, PH.D., LL.D.,
VICE-PRESIDENT,
Professor of Geology and Agriculture, and Director of the Experiment Station.
Bleecker Place.

REV. THEODORE SANDFORD DOOLITTLE, D.D.,
COLLEGIATE CHURCH *Professor of Rhetoric, Logic and Mental Philosophy.*
Seminary Place.

REV. JACOB COOPER, D.D., D.C.L.,
Professor of the Greek Language and Literature.
108 George Street.

REV. CARL MEYER, D.D.,
Professor of Modern Languages.
245 Easton Avenue.

FRANCIS CUYLER VAN DYCK, PH.D.,
Professor of Physics and Experimental Mechanics.
84 College Avenue.

EDWARD A. BOWSER. C.E., LL.D.,
Professor of Mathematics and Engineering.
"Queen's" College Building.

GEORGE BENJAMIN MERRIMAN, A.M.,
Professor of Mathematics and Astronomy.
282 Hamilton Street.

PETER TOWNSEND AUSTEN, PH.D., F.C.S.,
Professor of General and Applied Chemistry.
83 Easton Avenue.

REV. CHARLES EDWARD HART, D.D.,
Professor of the English Language and Literature.
88 Livingston Avenue.

AUSTIN SCOTT. PH.D.,
VOORHEES *Professor of History, Political Economy, and Constitutional Law.*
24 Livingston Avenue.

FRANCIS AUGUSTUS WILBER, M.S.,
Adjunct Professor of Analytical Chemistry.
Bishop Place.

*LOUIS BEVIER, PH.D.,
Adjunct Professor of Modern Languages.
145 College Avenue.

*EDGAR SOLOMON SHUMWAY, A.M.,
Professor of the Latin Language and Literature.
"Queen's" College Building.

ALFRED ALEXANDER TITSWORTH, M.S., C.E.,
Professor of Graphics and Mathematics.
57 Livingston Avenue.

HORACE BUSHNELL PATTON, PH. D.,
Adjunct Professor of Chemical Geology and Mineralogy, and their Application in Agriculture.
(Experiment Station.)
38 College Avenue.

JULIUS NELSON, PH. D.,
Professor of Biology, and its Applications in Developing Food-Products.
(Experiment Station.)
Benner Street, Highland Park.

SAMUEL EWING SMILEY, 2D LIEUTENANT, 8TH U. S. INFANTRY,
Professor of Military Science and Tactics.
122 Bayard Street.

_____,
† *Professor of Botany and Horticulture.*

_____,
† *Instructor in Gymnastics.*

IRVING STRONG UPSON, A.M.,
Librarian.
118 Bayard Street.

The names of the Faculty after that of the President are arranged according to seniority of appointment.

* During all of last year and part of the current College year, Professor Shumway has been traveling in Europe, studying Archæology, Epigraphy, etc., and Professor Bevier has acted as Professor of Latin.

† To be filled this year.

SENIOR CLASS.

Classical Section.

Names.	*Residences.*	*Rooms.*
HARRY RANDOLPH ANDERSON,	Rahway,	Rahway.
CHARLES BEST BENSON,	Hudson, N. Y.,	Delta Phi House.
ARTHUR J. COLLIER,	Coxsackie, N. Y.,	91 Bayard St.
BYRON CUMMINGS,	West Bangor, N. Y.,	354 George St.
JOHN TEN EYCK DE WITT,	Wallkill, N. Y.,	44 Hertzog Hall.
GEORGE VAN WAGENEN DURYEE,	Jersey City,	38 College Ave.
WILLIAM WATSON HALLOCK,	Brooklyn, N. Y.,	81 Easton Ave.
ISAAC MACMUNN HOLLY,	New York City,	420 George St.
CHARLES EDWIN INGERSOLL,	New Brunswick,	81 Easton Ave.
JAMES HARVEY KEELING, JR.,	Utica, N. Y.,	17 Hertzog Hall.
GEORGE ARMSTRONG LIGGETT,	Rahway,	Rahway.
HARVEY LOSEE,	Upper Red Hook, N.Y.,	Delta Phi House.
CHARLES MAAR,	Poughkeepsie, N. Y.,	17 Hertzog Hall.
KUMAKICHIRO OISHI,	Tokio, Japan,	105 Albany St.
HENRY LIVINGSTON RUPERT,	Newark, N. Y.,	27 Albany St.
SAM CORLE SCHENCK,	Lambertville,	419 George St.
*CLARENCE GOODWIN SCUDDER,	Vellore, India.	
CHARLES JUDSON SCUDDER,	Saugerties, N. Y.,	Delta Phi House.
GEORGE JOSEPH STEINMETZ, JR.,	Cedar Grove,	420 George St.
†GEORGE BOICE THOMPSON,	Colt's Neck.	
MAURICE JOSEPH THOMPSON,	New Brunswick,	137 Somerset St.
ELIAS WORTMAN THOMPSON,	Readington,	31 Hertzog Hall.

Scientific Section.

Names.	*Residences.*	*Rooms.*
ALBERT CORNELIUS AREND,	Trenton,	Trenton.
HAROLD DIOSSY FORCE,	Newark,	33 Livingston Av.
RICHARD THURSTON GREENE,	Elizabeth,	Elizabeth.
EDWARD HOWELL,	Morristown,	25 Schuyler St.
GEORGE MORRIS,	New Monmouth,	203 Neilson St.
WILLIAM SHIELDS MYERS,	Sidney, N. Y.,	91 Bayard St.
JOHN OSBORN POLAK,	Brooklyn, N. Y.,	338 George St.
JOSEPH SCOTT STILLWELL,	Lexington, Ky.,	College Ave.
JOHN PHILLIPS STREET,	Beverly,	118 Bayard St.

*Died May 12th, 1888. †Died October 28th, 1888.

JUNIOR CLASS.

Classical Section.

Names.	*Residences.*	*Rooms.*
*Frederick Austin Aikin,	Warsaw, N. Y.	
Howard Wilber Ennis,	Albany, N. Y.,	12 Hertzog Hall.
Garrett Jacob Folmsbee,	So. Shodack, N. Y.,	12 Hertzog Hall.
James Fountain,	Matawan,	33 Livingston Av.
George Washington Glasier,	Warsaw, N. Y.,	215 New St.
Gerard Hallock,	Linden,	Linden.
Horace Sterling Hawes,	Richmond, Va.,	Delta Phi House.
Irving Hoagland,	Franklin Park,	354 George St.
Arthur Frederick Mabon,	New Brunswick,	Seminary Place.
Warren Ackerman Mayou,	Marysville, Kansas,	64 College Ave.
Stephen Ward Righter,	Boonton,	Chi Psi House.
Warren Redcliffe Schenck,	New Brunswick,	Redcliffe.
Henry Johnston Scudder,	Saugerties, N. Y.,	Delta Phi House.
Arthur Spaulding,	Newark,	Chi Psi House.
Elias Brown Van Arsdale,	Paterson,	44 Hertzog Hall.
John S. Van Orden,	Spring Valley, N. Y.,	37 Hertzog Hall.
Alexander Van Wagoner,	Paterson,	379 George St.
Charles William Van Zee,	Pamrapo,	35 Hertzog Hall.
Ralph Spencer Voorhees,	Bedminster,	120 Bayard St.
William Davis Ward,	Closter,	43 Hertzog Hall.
Erastmus Ames Whitenack,	Bedminster,	College Farm.

Scientific Section.

Names.	*Residences.*	*Rooms.*
Charles Divine,	Elizabeth,	Elizabeth.
Howard Elting,	Gardiner, N. Y.,	Delta Phi House.
Allen Price Ford,	Crosswicks,	90 Albany St.
Theodore Jackson Gillies, Jr.,	Plainfield,	215 New St.
Howard Goff,	East Creek,	27 Albany St.
Samuel Hobart Lockett, Jr.,	Cranford,	Cranford.
Malcolm Cameron Ludlam,	South Dennis,	Chi Psi House.
Edward Thorn Middleton,	Crosswicks,	83 New St.
Warren M. Osborn,	Point Pleasant,	27 Albany St.
John Alfred Potter,	Rahway,	Rahway.
Louis William Stotesbury,	Matteawan, N. Y.,	64 College Ave.

* Died August 8th, 1888.

SOPHOMORE CLASS.

Classical Section.

Names.	*Residences.*	*Rooms.*
JAMES BISHOP, JR.,	Trenton,	95 Bayard St.
EDWARD OTIS CHICKERING,	Catskill, N. Y.,	168 New St.
HARRY THORNTON DAYTON,	Brooklyn, N. Y.,	Chi Psi House.
ALFRED DUNCOMBE,	Jersey City,	15 Hertzog Hall.
WORTHINGTON SEYMOUR FARLEY,	JR., Fort Plain, N. Y.,	Delta Phi House.
JASPER SAMUEL HOGAN,	Guilderland Cent., N.Y.,	53 Hertzog Hall.
ROBERT JAMES HOGAN,	Guilderland Cent., N.Y.,	53 Hertzog Hall.
ABRAM WHITTAKER HOPPER,	Spring Valley, N. Y.,	35 Hertzog Hall.
CHARLES WESLEY HULST,	Greenwich, N. Y.,	185 Livingston Av.
CHARLES SEWARD JOHNSON,	Brier Hill, N. Y.,	154 New St.
HARRY LOCKWOOD,	Albany, N. Y.,	154 New St.
SAMUEL CLIFTON MABON,	New Brunswick,	Seminary Place.
REID FRANK MILLER,	Sacramento, Cal.,	117 Bayard St.
WILLIAM POHLMAN POOL,	Somerville,	114 Bayard St.
JOHN HOWARD RAVEN,	Brooklyn, N. Y.,	38 College Ave.
PATRICK AUGUSTINE RAY,	Greenwich, N. Y.,	90 Albany St.
HOWARD AUGUSTUS REYNOLDS,	New Brunswick,	179 George St.
HERBERT BENNETT ROBERTS,	Kingston, N. Y.,	37 Hertzog Hall.
WALTER COOLEY SAMPSON,	New Brunswick,	Chi Psi House.
EDWARD VAN VECHTEN SEARLE,	Hurley, N. Y.,	95 Bayard St.
JAMES COFFYN STOUT,	New Brunswick,	56 Bayard St.
CLIFFORD HENRY STRANG,	Montrose-on-Hudson, N. Y.,	338 George St.
SELAH WOODHULL STRONG,	New Brunswick,	86 Carroll Place.
WILLIAM VAN DEURSEN STRONG,	New Brunswick,	86 Carroll Place.
GILLETT WYNKOOP,	Catskill, N. Y.,	95 Bayard St.

Scientific Section.

Names.	*Residences.*	*Rooms.*
John Charles Aydelott,	Pekin, Ill.,	64 College Ave.
Jacob Lewis Bauer,	Elizabeth,	Elizabeth.
Philander Betts, 3d,	Hackensack,	27 Albany St.
Elihu Calvin Bryan,	Shekomeko, N. Y.,	168 New St.
Joseph Compton Castner,	New Brunswick,	130 Church St.
Paull Jewill Challen,	New Brunswick,	136 Hamilton St.
Robert Joseph Dougherty,	New Brunswick,	421 George St.
Hiram Augustus Farrand,	Vineland,	Highland Park.
Harry Williams Fuller,	Bergen Point,	Bergen Point.
Thomas Mandeville Hopper,	Paterson,	379 George St.
Rodney Tuttle Howell,	Whippany,	Chi Psi House.
Harold Lyman Hoyt,	Bound Brook,	94 Welton St.
Samuel Arthur Johnson,	Morristown,	27 Albany St.
George Andrews Mitchell,	Vineland,	Highland Park.
Frederick Seymour Smith,	Morristown,	168 New St.
Henry Hewgill Stevens,	New Brunswick,	Clifton Ave.
Isaac Mabbett Sutton,	Poughkeepsie, N. Y.,	64 College Ave.
Clarence H. Terhune,	New Brunswick,	185 Livingston Av.
Arthur Benjamin Totten,	Middlebush,	Middlebush.
Cornelius D. Vreeland, Jr.,	Little Falls,	114 Bayard St.
Edward Lasky Welling,	Warwick, N. Y.,	Delta Phi House.

FRESHMAN CLASS.

Classical Section.

Names.	*Residences.*	*Rooms.*
WINFRED RUGAN ACKERT,	Poughkeepsie, N. Y.,	22 Hertzog Hall.
OSMYN BAKER,	Millington,	Chi Psi House.
ALBERT DORRANCE BALDWIN,	Newark,	47 Hertzog Hall.
THOMAS BELL,	Jersey City,	47 Hertzog Hall.
JOSEPH FREDERIC BERG,	College Point, L. I.,	45 Hertzog Hall.
CLARENCE HORNBECK BONNELL,	Port Jervis, N. Y.,	64 College Ave.
PHILIP MILLEDOLER BRETT,	Jersey City,	350 George St.
HENRY ROBINSON BRISTOL,	Warsaw, N. Y.,	215 New St.
JAMES DICKSON CARR,	New York City,	28 French St.
GARRETT MILTON CONOVER,	Clinton,	31 Hertzog Hall.
DRURY WALLS COOPER,	New Brunswick,	108 George St.
CHARLES EDWARD CORWIN,	New Brunswick,	Hertzog Hall.
HARRY ROSE DANNER,	Paterson,	379 George St.
HARRY KIMBALL DAVIS,	Hagaman's Mills, N. Y.,	8 Bethany St.
MILTON DEMAREST,	Oradell,	45 Hertzog Hall.
SAMUEL GASTON DUNHAM,	Rahway,	24 Hertzog Hall.
CHALMERS PETER DYKE,	Grand Rapids, Mich.,	22 Hertzog Hall.
CHARLES ESSELSTYN,	Hudson, N. Y.,	336 George St.
ROBERT EMMET FARLEY,	Fort Plain, N. Y.,	Delta Phi House.
GILBERT TERBELL GALE,	Bergen Point,	Chi Psi House.
AMOS HOPPOCK HAINES,	Sergeantsville,	Somerset St.
FRANKLIN HOLMES HALIDAY,	Rahway,	24 Hertzog Hall.
HOWARD CROSBY HASBROUCK,	Highland Park,	Highland Park.
JESSE CHARLES HAZZARD,	Kingston, N. Y.,	Chi Psi House.
CLARENCE WINANTS HILLYER,	New York City,	20 Hertzog Hall.
FREDERICK NELSON JACOBUS,	Newark,	Newark.
GEORGE DE WITT KELSO,	Newburgh, N. Y.,	135 George St.
ISAAC WILLIAM LOTT,	Flatlands, L. I.,	16 Hertzog Hall.
HENRY MCKNIGHT MOORE,	Jersey City Heights.	
MITSUYE OI,	Tokio, Japan,	33 Hertzog Hall.
HENRY WEMPLE PAWLING,	Hagaman's Mills, N.Y.,	39 Hertzog Hall.
GEORGE ROBERT PERCY,	Jersey City,	350 George St.
WALTER TRACY SCUDDER,	Tindivanam, India,	Delta Phi House.
WILLIAM CARMAN SHERWOOD,	Jersey City,	350 George St.
JAMES BISHOP THOMAS,	New Brunswick,	184 Livingston Ave.
JAMES WESTFALL THOMPSON,	New Brunswick,	137 Somerset St.
FRANK VOORHEES,	New York City,	104 French St.
WALTER WINANT,	Tappan, N. Y.,	39 Hertzog Hall.
ROBERT SUMNER WINN,	Shanghai, China,	137 Somerset St.

Scientific Section.

Names.	*Residences.*	*Rooms.*
ANDREW HALL BERRY,	Elizabeth,	420 George St.
EUGENE BETTS,	Hackensack,	Hackensack.
ELLIS BISHOP,	Trenton,	95 Bayard St.
GEORGE RADCLIFF BROWN,	Port Elizabeth,	27 Albany St.
HOLMES EARLE BRUERE,	New Egypt,	11 Paterson St.
GEORGE COLFAX BULLOCK,	Jacobstown,	Chi Psi House.
WILLIAM JACOB COOPER,	New Brunswick,	108 George St.
JOHN MICHAEL DALY,	New Brunswick,	68 Guilden St.
MAURITZ FRED. H. DE HAAS, JR.,	Brooklyn, N. Y.,	361 George St.
PETER CONOVER FIELD,	New Brunswick,	381 George St.
FREDERICK FORCE FISHER,	Newark,	33 Livingston Ave.
GEORGE ROOT FULLER,	Jersey City,	Jersey City.
JOSEPH ALLEN HEADLEY,	Union,	67 French St.
JOHN ROYAL HEMION,	Passaic,	361 George St.
RICHARD SWANN LULL,	Trenton,	Chi Psi House.
IGNACIO GARCIA R. MARQUEZ,	Mexico,	33 Livingston Ave.
HARRY AUGUSTUS MATHER,	Morristown,	379 George St.
JAMES MORRIS MCCLOSKEY,	New Brunswick,	97 Remsen Ave.
DANIEL HERBERT MCLAURY,	New Brunswick,	350 George St.
LIVINGSTON RUTGERS MORGAN,	New Brunswick,	47 Bayard St.
AUSTIN FLINT MORRIS,	Jersey City,	420 George St.
WILLIAM THOMAS MORRISON,	Montclair,	114 Bayard St.
*GEORGE HERBERT RIBLETT,	Rahway.	
CLIFFORD STOCKTON SHAW,	Hyde Park, N. Y.,	104 Bayard St.
WILLIAM HULINGS STAFFORD,	Haddonfield,	350 George St.
RICHARD STORMS,	Paskack,	19 Plum St.
PERRY ELIAS TAYLOR,	Schoharie, N. Y.,	25 Schuyler St.
FRANK ROBERTSON VAN HORN,	Johnsonsburg,	104 French St.
WILLIAM VAUGHAN,	Orange,	420 George St.
HENRY EDWIN WATERS,	Rahway,	Rahway.
ALBERT B. WELLS,	Southbridge, Mass.,	420 George St.
DANIEL GREGORY WRIGHT,	Elizabeth,	420 George St.
GEORGE HAMPTON WYCKOFF,	New Brunswick,	243 George St.

* Died October 3d, 1888.

SPECIAL STUDENTS.

NOT CANDIDATES FOR A DEGREE.

Names.	*Residences.*	*Rooms.*
William Eugene Breazeale,	Anderson, S. C.,	105 Albany St.
Harry Duncan Garretson,	Franklin,	434 George St.
John Francis Hagerty,	New Brunswick,	189 Albany St.
Albert Bodwell Harrison,	Irvington,	27 Albany St.
Baldwin Hasbrouck,	Highland Park,	Highland Park.
Louis Hieber,	Germany,	16 Hertzog Hall.
Sanford Watreons Hover,	Germantown, N. Y.,	105 Albany St.
William Charles Hubbard,	Plainfield,	57 Livingston Av.
John Ellis Irick,	Vincentown,	83 New St.
James Hasbrouck Le Fevre,	Middlebush,	Middlebush.
Marcus Caldwell Sears,	New Brunswick,	College Farm.
Frank Halsey Skinner,	Belleville,	Delta Phi House.
Isaac Sperling,	Middlebush,	16 Hertzog Hall.
Garret Scott Voorhees,	Bedminster,	120 Bayard St.

SUMMARY.

Seniors	30
Juniors	31
Sophomores	46
Freshmen	72
Specials	14
Total, 1888-89	193

[Total, 1886-87, 128. Total, 1887-88, 155.]

CLASSICAL DEPARTMENT.

1. ADMISSION.

Examinations for admission to the College will be held on Monday and Tuesday of Commencement week, June 17th and 18th, 1889, beginning at 10 o'clock Monday morning. Applicants for admission may also be examined on Tuesday, September 17th, at 10 A. M. Students who can do so are advised to be present for examination in June.

From certain preparatory schools of approved standing, students are admitted (conditionally) upon the Principal's certificate.

Examinations for admission are both written and oral.

Candidates for admission to advanced classes must sustain a satisfactory examination upon the subjects previously studied by the class which they propose to enter, as well as on those required for admission into the Freshman Class. Under this regulation, students are admitted at any time during the collegiate year.

Students who desire to pursue selected branches of study may do so, if properly prepared to pursue them with the regular classes. Special provision is made for such students in the Scientific Department. All such students are required to take examinations with the class with which they study, and sufficient work must be taken to occupy fully the student's time.

It is expected that students who present themselves will be prepared, by careful study and by *reviews* of their work, to pass successfully a thorough examination on the subjects which are required.

Only such students are admitted with conditions as are, in the opinion of the examiners, so nearly prepared as to be able to

make up all deficiencies during the first two months of the term, meanwhile maintaining a good standing in their class.

Conditioned students will have an opportunity given them to remove their entrance conditions as early as possible in the first term. It is expected that *all entrance conditions* will be made up before the Thanksgiving recess.

SLOAN PRIZES FOR THE BEST ENTRANCE EXAMINATIONS, CLASSICAL COURSE.

A FIRST PRIZE OF ONE HUNDRED DOLLARS in cash and a SCHOLARSHIP YIELDING $300, to apply on term bills; and a SECOND PRIZE OF FIFTY DOLLARS in cash and a SCHOLARSHIP YIELDING $300, to apply on term bills, will be awarded to the students who shall be adjudged by the examiners to have passed the best examination among the applicants for admission to the Freshman Class, in 1889. The names of the successful candidates, and of the schools at which they prepared for College, will be printed in the annual catalogue. The cash prizes will be awarded, one-half at matriculation and one-half at the end of the second term of the Freshman year. The scholarship funds will be applied to cancel term bills for tuition during the course, and will be forfeited if the student's general average on the work of the year falls below 80 on a scale of 100.

These two cash prizes have been given for six years by Hon. SAMUEL SLOAN, of New York, a member of the Board of Trustees.

The FIRST PRIZE, September, 1887, was awarded to CHARLES SEWARD JOHNSON, prepared at the Oswego State Normal School, Oswego, N. Y., E. A. SHELDON, Principal; SECOND PRIZE, to HARRY LOCKWOOD, Batavia, Illinois, prepared at the Rutgers College Grammar School, New Brunswick, E. T. TOMLINSON, Ph.D., Head-Master.

The FIRST PRIZE, September, 1888, was awarded to CHARLES EDWARD CORWIN, prepared at the Rutgers College Grammar School, New Brunswick; the SECOND PRIZE, to JAMES BISHOP THOMAS, prepared at the same school, New Brunswick, E. T. TOMLINSON, Ph.D., Head-Master.

REQUIREMENTS FOR ADMISSION.

The following, or a full equivalent, are the requirements for admission to the Freshman Class:

1. LATIN.

Harkness's or Allen and Greenough's, or Gildersleeve's Latin Grammar, including the principles of Prosody.

Jones' Latin Composition, or the first 44 sections of Arnold's Latin Prose Composition, or an equivalent.

Cæsar, Four Books of the Gallic War [or Books I. and II. and Sallust's Catiline].

Vergil, Æneid, 6 Books.

Seven Orations of Cicero, of which it is recommended that the orations for the Poet Archias, on the Manilian Law, and for King Deiotarus, shall be three.

Questions on the subject-matter, the history, the geography and the mythology involved in the Latin read. *Students will be tested in reading "at sight" easy Latin (e. g., Cæsar, Sallust, Cicero, Quintus Curtius); and a map of Italy, to be drawn from memory, at the examination, will be required, together with familiarity with the classical geography of Gaul and Spain; and Smith's Smaller History of Rome (or an equivalent history of this period) to the time of the Empire.*

In preparing in Latin, the student should give close attention to the regular prose constructions of the language, and especially, in reading Cæsar or Sallust, to the forms of "indirect discourse." He should be thoroughly drilled in the use and the force of the moods and *tenses*, the consecution of tenses, the gerundive construction, etc., and should be taught to analyze the sentence into subject and predicate, and the words, phrases or clauses which modify the subject and the predicate.

The student should have as much exercise in writing Latin as possible. From the first, exercises in rendering English into Latin, both orally and in writing, are earnestly recommended.

The system of pronunciation followed is the Roman. For correctness of pronunciation, the rules of quantity are necessary to those who have not been thoroughly accustomed to the correct sound of the Latin words.

2. GREEK.

Hadley's or Goodwin's Greek Grammar, including the principles of Prosody, and of *Accentuation*.

Xenophon's Anabasis—three books, or an equal amount of Goodwin's Greek Reader.

Arnold's First Greek Book, or Whiton's First Greek Book, entire; and Jones's Exercises in Greek Composition or Sidgwick's First Greek Writer. Introduction and 60 exercises.

Homer—The Iliad, three books (omitting the catalogue of the ships).

Questions on the subject-matter, etc., as above.

Greek History will be required, Smith's Smaller History of Greece, or an equivalent; students will be tested at the entrance examinations in reading at sight easy Greek prose; and a map of Greece, with a good knowledge of the Geography of the Greek Islands and of Asia Minor, will be required.

The applicant must be thoroughly familiar with the leading principles of the whole Grammar, including accent, quantity and prosody.

In pronunciation, the accent must be followed in prose; but in poetry, regard will be had only to quantity.

Work done in reading other authors than those named in the requirements will be accepted, provided the pupil can pass upon a *full* equivalent.

3. MATHEMATICS.

Arithmetic complete, including the Metric System.

Algebra through Quadratic Equations, including Radicals; or the first 15 chapters of Bowser's College Algebra.

Plane Geometry—four books of Wentworth, or an equivalent, *including the Problems and Exercises.*

Careful attention should be given to the *exercises* in Geometry, as they greatly aid in acquiring readiness in geometrical reasoning.

Attention is especially called to the Metric System of Weights and Measures, a practical knowledge of which is indispensable, since it is used in the classroom; and to the *essential importance of a thorough preparation in the elements of Algebra*, on which subsequent success in Mathematics so much depends. The mistake is often made of passing too hurriedly over the first few chapters of Algebra. The whole book will be more quickly and surely mastered if the first part be studied slowly and thoroughly, with frequent reviews.

In preparing in Mathematics the student should acquire a proficiency and readiness in the application of the principles; and to that end the careful solution of numerous and varied examples is earnestly recommended. It is also desirable to cultivate habits of neatness and order in the presentation of work on the blackboard or on paper.

4. THE ENGLISH BRANCHES.

Geography.

English Grammar.

Spelling.

History of the United States (Johnston's History of the United States).

Candidates for admission are examined in the History of the United States, with special reference to the colonization of the several States, the forms of government which existed previous to the war for independence, the causes and principal events of that war, the period of the Confederation, the establishment of the Federal Constitution, with the general history subsequent to that event.

Students often lack thorough or recent preparation in this subject. A more accurate knowledge of American History has become necessary as preliminary to the systematic instruction now given on the duties and relations of American citizenship.

A short English Essay is also required, to be written at the examination, on some theme drawn from books announced in advance; the essay to be correct in spelling, punctuation, division into paragraphs, grammar and expression. In June and September, 1889, the themes will be drawn from these books, which all students who apply for admission then should have read carefully: Irving's *Sketch Book;* Shakespeare's *Julius Cæsar;* Tennyson's *In Memoriam;* Scott's *Ivanhoe.*

In 1890, students should be familiar with Kingsley's *Westward Ho!;* Shakespeare's *Macbeth;* Thackeray's *Henry Esmond;* Longfellow's *Miles Standish.*

2. COURSE OF INSTRUCTION.

The Course of Instruction occupies four years, with three terms in each year.

The following is a scheme of the studies of the course. While it is subject to change in details, it furnishes an exhibit of the amount of work required of students during the four years, and indicates to candidates for advanced standing the equivalents which will be accepted from them :

FRESHMAN CLASS.

Exercises during each term of the year in Composition, Declamation and Ex Tempore Speaking. Bible-Class, Sabbath Morning.

FIRST TERM, THIRTEEN WEEKS.

1. LATIN (4 hours a week).—Cicero, De Amicitia; Oral and Written Composition; Shumway's Latin Synonymes; Halsey's Etymology.
2. GREEK (4 hours a week).—Lucian's Timon, or three books of Homer; Sidgwick's First Greek Writer, beginning with the 61st exercise.
3. MATHEMATICS (4 hours a week).—Wentworth's Geometry, from Book V.
4. ENGLISH LITERATURE (2 hours a week).—History of the English language, Meiklejohn; Study of Words, Trench.
5. BIOLOGY (2 hours a week).—Comparative Anatomy; Lectures; Physiology, Martin.

SECOND TERM, THIRTEEN WEEKS.

1. LATIN (4 hours a week).—Livy; Composition.
2. GREEK (4 hours a week).—Demosthenes's Olynthiac Orations, 2d and 3d, and one Philippic; Sidgwick's First Greek Writer finished; Jebb's Primer of Greek Literature.
3. MATHEMATICS (4 hours a week).—Wentworth's Geometry completed; Algebra, Bowser's.
4. RHETORIC (2 hours a week.)—Kellogg; Lectures; Essays.
5. BIOLOGY (2 hours a week).—Comparative Anatomy; Lectures, Physiology, Martin.
6. ELOCUTION.—Lectures and Declamations.

THIRD TERM, TEN WEEKS.

1. LATIN (4 hours a week).—Horace; Mythology and Antiquities.
2. GREEK (4 hours a week).—Isocrates's Panegyric, Ed. Felton; Wilkins's Manual of Greek Prose.
3. MATHEMATICS (4 hours a week).—Bowser's Algebra completed.
4. BOTANY (2 hours a week).—Gray.
5. ENGLISH LITERATURE (2 hours a week).—An English Author.
6. ENGLISH COMPOSITION.—Exercises.

SOPHOMORE CLASS.

Exercises throughout the year in Composition, Declamation and Ex Tempore Speaking. Bible-Class, Sabbath morning.

FIRST TERM.

1. LATIN (4 hours a week).—Cicero's Second Philippic and De Oratore; Latin Composition.

2. GREEK (4 hours a week).—Sophocles' Œdipus Rex; Wilkins's Manual of Greek Prose Composition.

3. INORGANIC CHEMISTRY (3 hours a week).—Lectures, with Experiments, Richter; Austen's Lecture-Notes.

4. MATHEMATICS (5 hours a week).—Wentworth's Trigonometry, Plane and Spherical, and Peirce's Four-Figure Tables.

SECOND TERM.

1. LATIN (3 hours a week).—Tacitus, De Oratoribus and Historiæ; Composition.

2. GREEK (3 hours a week).—Thucydides, one book; Wilkins's Manual of Greek Prose Composition.

3. MATHEMATICS (3 hours a week).—Bowser's Analytic Geometry.

4. HISTORY (4 hours a week).—Fisher's Outlines, with Essays by the Class.

5. INORGANIC CHEMISTRY (3 hours a week).—Lectures, with Experiments, Richter; Austen's Lecture-Notes.

THIRD TERM.

1. LATIN (4 hours a week).—Pliny's Letters, Terence or Plautus; History of Latin Literature.

2. GREEK (4 hours a week).—Aristophanes' Knights, Koch's Ed.; Wilkins's Manual of Greek Prose Composition completed.

3. MATHEMATICS (3 hours a week).—Bowser's Analytic Geometry.

4. HISTORY (2 hours a week).

5. INORGANIC CHEMISTRY (3 hours a week).—Lectures, with Experiments, Richter; Austen's Lecture-Notes.

JUNIOR CLASS.

Exercises throughout the year in Composition and Original Declamation.
Bible-Class, Sabbath morning.

FIRST TERM—PRESCRIBED STUDIES.

1. GREEK (3 hours a week).—Plato's Phædo, Wagner's Ed.; Buckholz's Anthology, Bändchen II.
2. MENTAL PHILOSOPHY (4 hours a week).—Porter's Elements of Intellectual Philosophy and Lectures, with Essays on Metaphysical Subjects.
3. PHYSICS (2 hours a week).—Deschanel; Lectures, with Experiments.
4. GERMAN (3 hours a week).—Whitney's Brief German Grammar.
5. HISTORY (2 hours a week).—The English Constitution.

FIRST TERM—ELECTIVE STUDIES.

At least one of which is to be pursued; the course in Mathematics and that in Chemistry, if chosen, hold throughout the year; the other electives are arranged with a course for each term:

1. MATHEMATICS.—Differential and Integral Calculus, Bowser.
2. CHEMISTRY.—Experimental Chemistry, Remsen; Laboratory Practice.
3. ENGLISH.—Sweet's Anglo-Saxon Primer; Chaucer.
4. LATIN.—Cicero, De Natura Deorum; Writing Latin.
5. FRENCH.
6. GENERAL BIOLOGY.—Lectures; Laboratory Practice.

SECOND TERM—PRESCRIBED STUDIES.

1. LATIN (3 hours a week).—The Institutes of Justinian, or Gaius; Morey's Outlines of Roman Law; Writing Latin.
2. MENTAL PHILOSOPHY AND LOGIC (3 hours a week).—Porter's Elements of Intellectual Philosophy, and Lectures; Essays on Metaphysical Subjects; LOGIC—Jevons-Hill's Logic.
3. PHYSICS (2 hours a week).—Deschanel; Lectures, with Experiments.
4. GERMAN (3 hours a week).—German Reader.
5. ASTRONOMY (3 hours a week).—Young.

SECOND TERM—ELECTIVE STUDIES.

At least one of which is to be pursued:

1. MATHEMATICS.—Calculus, Bowser.
2. CHEMISTRY.—Blowpipe Analysis, Nason; Lectures; Laboratory Practice.
3. ENGLISH.—Poetics.
4. GREEK.—Aristotle's Ethics, Books I. and II.
5. FRENCH.
6. GENERAL BIOLOGY.—Lectures; Laboratory Practice.

THIRD TERM—PRESCRIBED STUDIES.

1. HISTORY OF CIVILIZATION (4 hours a week).—Guizot; Essays.
2. GERMAN (4 hours a week).—Classic Authors, and a weekly Lecture on German Literature.
3. PHYSICS (2 hours a week).—Deschanel; Lectures, with Experiments.
4. ENGLISH LITERATURE (2 hours a week).—English Authors.

THIRD TERM—ELECTIVE STUDIES.

At least two of which are to be pursued:

1. GREEK.—Plato's Republic, Books V. and VI.
2. LATIN.—Catullus, Tibullus, Propertius.
3. MATHEMATICS.—Calculus, Bowser.
4. CHEMISTRY.—Qualitative Analysis, Crafts; Laboratory Practice.
5. ENGLISH.—Milton, or Shakespeare.
6. FRENCH.
7. METAPHYSICS.

SENIOR CLASS.

Exercises throughout the year in Composition and Original Declamation. Bible-Class, Sabbath morning.

FIRST TERM—PRESCRIBED STUDIES.

1. MORAL PHILOSOPHY (4 hours a week).—Calderwood's Hand-book; Lectures; Essays.
2. POLITICAL ECONOMY (4 hours a week).—Walker and Perry; Lectures.
3. PHYSICS (2 hours a week).—Deschanel; Lectures.
4. LECTURES (1 hour a week).—On THE SCIENCE AND ART OF TEACHING, and on SOCIAL SCIENCE, HISTORY, ARCHÆOLOGY, etc.

FIRST TERM—ELECTIVE STUDIES.

At least two of which are to be pursued; courses in Senior Elective work are chosen at the beginning of the first term and pursued for the entire year:

1. GREEK.—Selections from Aristotle's Organon with Porphyry's Isagoge.
2. ASTRONOMY.—Loomis's Practical Astronomy; Observatory Work; Lectures.
3. PHYSICS.—Experimental Mechanics; Deschanel, Part I.
4. MODERN LANGUAGES.—German; French.
5. CHEMISTRY.—Qualitative Analysis, Crafts; Laboratory Practice.

6. LATIN.—Rhetorical, or Legal, or Patristic.
7. HISTORY.—Comparative Study of the growth of Modern Constitutions.
8. HEBREW (extra hours).

SECOND TERM—PRESCRIBED STUDIES.

1. POLITICAL ETHICS; THE DUTIES OF CITIZENSHIP (4 hours a week).—Lieber and Woolsey, Lectures, Essays.
2. CONSTITUTION OF THE UNITED STATES (5 hours a week).—Cooley; Essays.
3. GEOLOGY (2 hours a week).—Geikie.

SECOND TERM—ELECTIVE STUDIES.

At least two of which are to be pursued:

1. LATIN.—Selections from Lucretius, and Vergil's Georgics.
2. ASTRONOMY.—Loomis's Practical Astronomy; Observatory Work; Lectures.
3. MODERN LANGUAGES.—German; French.
4. CHEMISTRY.—Quantitative Analysis, Classen; Laboratory Practice.
5. PHYSICS.—Experimental Mechanics; Deschanel, Parts I. and II.
6. GREEK.—Buckholz's Greek Anthology, Part II.
7. HISTORY.—For the present Senior Class: American Constitutional Development.
8. DETERMINATIVE MINERALOGY.—Crosby, Dana.
9. HEBREW (extra hours).

THIRD TERM—PRESCRIBED STUDIES.

1. MORAL PHILOSOPHY (4 hours a week).—The Evidences of Christianity; Lectures on Practical Ethics.
2. GEOLOGY (4 hours a week).—Geikie.
3. ARCHITECTURE (3 hours a week, afternoon).—Lectures.

THIRD TERM—ELECTIVE STUDIES.

At least two of which are to be pursued:

1. GREEK.—Trendelenburg's Elementa Logica, Aristotle; Lectures on the Organon.
2. MODERN LANGUAGES.—German; French.
3. CHEMISTRY.—Preparation of Chemical Substances; Lectures; Laboratory Practice.
4. ASTRONOMY.—Loomis's Practical Astronomy; Observatory Work; Lectures.
5. PHYSICS.—Heat; Light; Electricity; Deschanel, Parts II., III. and IV.
6. LATIN.—Latin Style; Lectures and Practice.
7. HISTORY.—The Historical Drama—Shakespeare, Schiller, etc.
8. HEBREW (extra hours).

3. REMARKS ON THE COURSE OF STUDY.

In the above Schedule all the studies of the Freshman and Sophomore years are prescribed, and are intended to be of such a character as will furnish the sound basis of a liberal education, whatever profession or career is subsequently chosen. During the Junior and Senior years, certain subjects are prescribed for all candidates for a degree, while other subjects are made elective, at least one of which must be pursued by each student, in the Junior year, and at least two in the Senior year.

MORAL PHILOSOPHY, PRACTICAL ETHICS AND THE DUTIES OF CITIZENSHIP.

Moral Philosophy is taught during the Senior year by the study of text-books, by comments and criticisms, and by lectures. Full and intelligent discussion in the class-room is encouraged, in the belief that mere memorizing and reciting does not so teach such truth as to make it vitally the student's own.

The definite aim of the work in this department is not simply to set before the student what certain authors have written concerning theories of morality and virtue; but to make the study of the fixed and eternal distinction between right and wrong tend directly, so far as possible, to the voluntary and intelligent acceptance of the moral law, by every student, in the daily and hourly direction of his life.

Lieber's Political Ethics is made the basis of one term's work. A course of Lectures on Practical Ethics is given; and lectures and discussions on the Duties of Citizenship are made an especial feature of this course of study.

Brief addresses are made from time to time upon the questions of Social Science, and upon the Reforms which are before the public as problems of "Applied Christianity."

LANGUAGES.

LATIN.—While the chief purpose kept before the student during the early portion of the course is the thorough mastery of the language, as far as is practicable, the study of the history, institutions and literature of the Romans is pursued in connection with the Latin read. In the selection of text, care is taken to cover the principal periods of the literature, but chief prominence is given to those works which present the most valuable subject-matter for the student of Roman civilization and culture. In the later portion of the curriculum special courses are given in Roman Oratory, Law, Philosophy, etc.

From the beginning of the course instruction is given in part by means of questions and answers in Latin. Optional classes are formed for the better development of this method, and for the study of the History, Social Life and Institutions of the Romans.

Students should have Harper's or White's Latin-English, and White's English-Latin Lexicons, and a Classical Atlas.

GREEK.—The Classical Greek authors are read by the whole class during the entire Freshman and Sophomore years, and one term of the Junior year; also, by students who elect Greek, during the whole of the Junior and Senior years. The course is intended to embrace at least one complete treatise from a leading author belonging to each period from Homer to Lucian. While the amount read is distinctly indicated by the Catalogue, it is the purpose to vary the authors, or the portions from the same author, from year to year.

Promising students are encouraged to take special courses of study, in addition to the regular class work; and private instruction, supplemented by an efficient library, is constantly given. The following books of reference are recommended: Smith's Classical Dictionaries, 6 vols.; Jelf's Greek Grammar; Krüger's Greek Grammar and Kühner's ausführliche griechische Grammatik; Liddell and Scott's Lexicon, 7th Oxford Edition; Grote's History of Greece, and Mahaffy's History of Greek Literature.

ENGLISH LANGUAGE AND LITERATURE.—The course in English embraces, with the elective study of Anglo-Saxon, the required study of the history of the English language and its literature, and the critical reading of English classics. A course of private reading is prescribed, upon which examinations are held. Essays in literary criticism are required during the Sophomore year. The elective study of the language and literature is pursued during the Junior year.

GERMAN is taught, three hours per week, to students in both sections of the class, throughout the Junior year; and, in addition to this, lectures are given upon German Literature. While accurate grammatical work is insisted upon, the aim of the course is to enable the student to read ordinary German prose with ease. Exercises in writing German are continually required.

In the Senior year, German may be pursued as an elective study by the classical students; and German text-books are used with certain students in the Chemical Laboratory, and in the study of history and philosophy.

FRENCH is taught throughout the Freshman year, in the Scientific Course, and is continued during the Sophomore and the Junior years, in the use of French text-books in studying natural science and history. Classes use *French text-books in Physics* and in the *History of Civilization*. The aim of the course is to make the grammatical and linguistic training in the study of this language as valuable to the student as possible; and to accustom him to use French books and periodicals with perfect freedom in his professional studies and work.

In the Classical Course, instruction in French is offered to those who wish to take it as a study outside the course, and a course in French has been made an elective study for the Junior year.

HEBREW.—This language is taught as an extra study during the Senior year if any students desire to pursue it.

MATHEMATICS AND ASTRONOMY.

The required studies in Mathematics include Geometry, with problems and exercises in Geometrical invention, Algebra, Plane and Spherical Trigonometry with their application to problems in Surveying and Navigation, and Analytic Geometry. These are the mathematical studies of the first two years.

In the Junior year the study of the Calculus is elective.

Care is taken throughout that every principle shall receive a rigorous demonstration, and that it be applied as far as is practicable. No principle is thoroughly learned by the student until he can apply it.

Elementary Astronomy is taught during the second term to all the members of the Junior Class. The study of Theoretical and Practical Astronomy, with the use of the instruments of the Observatory, is elective in the Senior year. It is desirable that those who intend to take elective Astronomy should take the elective Mathematics of the Junior year, that they may be prepared for lectures in the more advanced part of the course.

The DANIEL S. SCHANCK OBSERVATORY of Rutgers College is well equipped for the work of practical instruction, being supplied with a six and one-half inch refracting telescope with position micrometer, a meridian circle with four-inch object glass, a repeating circle, and other instruments. It is in telegraphic connection with other observatories.

The refined methods of measurement which the use of astronomical instruments requires, the discussion of results and the determination of errors, afford a means of mental training unsurpassed in value. Add to these the familiarity with spherical astronomy and with the constellations which this study imparts, and the advantage gained is a strong recommendation of its pursuit.

The Observatory was designed and is used not only for independent work, but for the *instruction of students in the theory and the use of astronomical instruments, and in practical observatory work.* It affords to students unusual facilities for learning how to use astronomical instruments.

PHYSICS.

This subject is taught by lectures, and copious additions are made to the matter of the text-book. Each point is demonstrated as far as possible; and the relations of the subject to ordinary natural phenomena, the processes of the industrial arts, etc., are pointed out. Students are encouraged to use the apparatus under the direction of the Professor in charge, and are trained to distinguish the essential from the casual conditions of experiments, as well as to infer from scientific data *no more* than is certain and warranted. The course begins with Mechanics and proceeds to Heat, Electricity, Sound and Light.

The apparatus is well fitted to illustrate all principles, and such additions are made to it as the industrial applications of science demand.

Students in the Scientific Course, in the study of Physics, use the Paris Edition (French) of Ganot's larger treatise.

ELECTIVE PHYSICS.

During the Senior year of the Classical course, Physics is an elective study.

The object of this election is to afford an opportunity to lay a sound, practical foundation for a post-graduate course in electricity. The work will consist of a course of laboratory exercises such as is set forth in Stewart and Gee's Practical Physics, besides preliminary study based upon the text-book used in the regular course.

BIOLOGY.

Two courses in the Biological Sciences are offered, the first *required*, of Freshmen, the second *elective* for members of advanced classes.

I. In the first course, Human Anatomy, Physiology and Hygiene are taught by recitations from text-book ("The Human Body," Martin, Briefer Course) during the fall and winter terms. Supplementary to this, lectures are given on Comparative Zoölogy, more especially Vertebrate Anatomy, so far as the facts help to a clearer understanding of the human body.

The student is aided by demonstrations of the points considered, by means of charts, models, specimens and dissections. Classes meet two hours weekly, besides one afternoon each week for demonstration and consultation. References to accessory readings are given. In the spring term Descriptive Botany is taught. Classes meet two hours per week for recitations (Gray's "Lessons in Botany," new edition) and one afternoon each week for plant analysis.

II. The second course is a Laboratory Course in General Biology of two terms, first and second. Five hours per week in lecture-room and laboratory are required. The subject of *Fermentation* is first considered, and then types of plants and animals are studied in order of increasing complexity, closing with a course in *Vertebrate Embryology*. The aim is to give a practical knowledge of the anatomy of plants and animals, both gross and minute, for the proper appreciation of the principles of Botany and Zoölogy as presented by lectures and readings, special courses of these being given from time to time.

CHEMISTRY.

INORGANIC CHEMISTRY it taught by text-book and lectures. The course extends throughout the Sophomore year, three hours per week. The subject is introduced by experimental lectures on the volume composition of substances. Then follows a careful blackboard drill on the writing of empirical and constitutional formulas of acids, bases and salts. The elements are next taken up in lectures, followed by recitations. In all cases the aim is to illustrate *every point* experimentally, thus giving the student ample experience in rigid experimental demonstration. The students are required to take full notes of the lectures, and to sketch the apparatus used in the experiments. These notes are afterwards copied and handed to the Professor for examination, criticism, and correction, training the student in accurate observation, and facility and brevity of expression.

ELECTIVE CHEMISTRY.—In the Junior and Senior years, students may elect a course in Analytical Chemistry with

Laboratory Practice and Lectures. The experimental studies in this department have proved both attractive and profitable to those intending to devote themselves to Law or Medicine, or to business pursuits, as well as to men who intend to teach or to pursue lines of work immediately connected with chemistry and its applications.

The pupil begins by making the experiments in Remsen's Chemistry, thus acquiring by actual experience a familiarity with chemical substances and chemical phenomena.

The study of *Qualitative Analysis* is next taken up. The student makes the test, studies the reactions, and proceeds rapidly from analysis of simple substances to the more complex. The method here followed of keeping notes of every step affords the student valuable practice in the three divisions of experimental science—Experiment, Observation and Inference. The theory of analysis is explained in the lectures and recitations on the subject. In connection with this subject, *Blowpipe Analysis* is also taught. *Quantitative Analysis* now follows. The student having learned the means of detecting the constituents of a substance proceeds to the determination of their amount. Pure salts of known composition are analyzed at first, so that the results may be compared with the theoretical percentages. A sufficient degree of accuracy having been obtained, substances of unknown composition, as minerals, metals, ores, waters, urines, poisons, fertilizers, coals, etc., are analyzed.

RHETORIC.

ELOCUTION.—During the Freshman year, lectures are delivered on the general principles of Elocution, and a practical application of these principles is made by appropriate exercises in Declamation, in which the members of the class are carefully drilled. In addition to this there are exercises in Oratory by all the students, both in the class-room and the College Chapel. The Freshman and Sophomore Classes speak selected pieces; the Juniors and Seniors are required to deliver original orations.

In the department of Rhetoric, begun during the Freshman year, an effort is made to teach the principles of Composition,

not as laid down in mechanical rules, but as springing from psychological laws and relations. Ideas presented in accordance with various mental requirements and influences are shown to contain the true philosophy of rational and effective discourse. Illustrative references to the Masterpieces of Oratory, and to other forms of the best English Classical Literature, are freely given. Essays are required throughout the entire course.

EX TEMPORE SPEAKING.

The *Bussing Prizes* for excellence in *ex tempore* speaking, recently founded, are designed to cultivate the habit of presenting clearly, forcibly and accurately, and in a manner to convince an audience, the facts and ideas a student has upon themes with which he may fairly be supposed to be somewhat conversant. The repeated competitions for these prizes during the four years of the College course have already produced excellent effects.

METAPHYSICS AND LOGIC.

MENTAL PHILOSOPHY.—Porter's Elements of Intellectual Philosophy is used as a text-book during the first term and a part of the second term of the Junior year. The characteristic doctrines of the distinctive schools in Ancient and Modern Philosophy are presented in a course of lectures upon the representative thinkers of these schools. Much attention is paid to the most important philosophical and metaphysical questions now at issue among speculators. The results of recent critical discussions, together with comments, are interspersed with the daily recitations.

LOGIC.—Jevons-Hill's text-book is used. Special care is taken to enforce a practical application of logical formulas in the resolution of arguments, and the detection of sophistries. To this end illustrative examples are drawn from different authors and much oral instruction is given.

HISTORY, POLITICAL ECONOMY AND CONSTITUTIONAL LAW.

HISTORY.—The study of History is begun in the Sophomore year with the use of a text-book giving the outlines of ancient

history, followed by instruction in modern history, tracing the formation and growth of modern states. In this part of the course, a knowledge of historical geography is essential, and to this end a constant use of the historical atlas is required of the student. From time to time and increasingly as the class becomes familiar with the facts of history, and especially with the general relations of events, topics are assigned for special study, the results of such study by different members of the class and the various historical narratives which have been consulted are compared, the purposes and characteristics of historians pointed out, and instruction is given on the sources of history and historical methods.

The first term of the Junior year is given to a study of the English Constitution. In the third term Guizot's History of Civilization in Europe is used as a text-book. In lectures before the class, attention is directed to the action and reciprocal influences of political forces. The subjects assigned for essays are intended to stimulate a desire to understand the ideas which underlie the causes of events and which give to history its continuity and unity.

For students of the Senior year and for graduates, the Professor of History has formed a class in which the methods of study will be those of the so-called historical "Seminary." The following may serve as examples of the nature of the subjects proposed for the investigation in this class:

Methods of historical inquiry; fields open to the American student for original historical research; the nature of local government in England and America; comparative study of local institutions in the United States; the English Government in its theory and methods.

POLITICAL ECONOMY.—Instruction is given in Political Economy to the Senior Class in the first term by means of text-books, lectures and conversational discussions. The student is required to be familiar with the leading principles of this subject as presented by the author whose work is used as a text-book, and is then encouraged to study economical problems

of the present time from the historical and, so far as may be, absolutely impartial standpoint.

CONSTITUTIONAL LAW.—The Senior Class will pursue the study of Constitutional Law in the second term. With the study of the present status of Constitutional Law, a constant reference to the reports of decisions in the more important cases will serve to develop a familiarity with the processes of constitutional growth. Subjects involving constitutional questions will be assigned for the writing of essays.

During the same term the study of the History of the Constitution of the United States is pursued by the Senior Class of the Scientific Department.

INTERNATIONAL LAW.—The work of a French or German author will be made the basis of an exposition of the principles of International Law, while at the same time the acknowledged superiority of American and English authorities will be kept in view. The subject is taken up in the second term of the Senior year.

ARCHITECTURE.

ARCHITECTURE is taught during the third term of the Senior year, and is illustrated by the stereopticon, showing the successive orders and styles which have prevailed among different peoples and at different times.

PHYSICAL DEVELOPMENT—GYMNASIUM.

The Athletic Association, composed of students of Rutgers College, possesses large and commodious grounds.

The excellent *Gymnasium* in Suydam Hall, three minutes' walk from the College buildings, by the courtesy of the Theological Seminary of the Reformed Church, is open to the daily use of the students of Rutgers.

A thoroughly qualified Instructor is in attendance, and all students of the three lower classes are required to take systematic exercise in the Gymnasium, under his direction and supervision.

SCIENTIFIC DEPARTMENT.

RUTGERS SCIENTIFIC SCHOOL.

BY ACT OF THE LEGISLATURE CONSTITUTED THE STATE COLLEGE FOR THE PROMOTION OF AGRICULTURE AND THE MECHANIC ARTS.

BOARD OF VISITORS.

(APPOINTED BY THE GOVERNOR.)

FIRST CONGRESSIONAL DISTRICT.

	Residences.	*Terms Expire.*
HON. THOMAS H. DUDLEY,	Camden,	1890.
I. M. SMALLEY, ESQ.,	Roadstown,	1890.

SECOND CONGRESSIONAL DISTRICT.

JOHN I. BISHOP,	Columbus,	1890.
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SEVENTH CONGRESSIONAL DISTRICT.

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OFFICERS:

JOHN DE MOTT, ESQ., *President.*

PROF. GEORGE H. COOK, *Secretary.*

1. CONDITIONS OF ADMISSION.

Every applicant for admission must be at least sixteen years of age, and must submit to the President proper testimonials of a good moral character. If an applicant for a State Scholarship, he must also present to the President a certificate of appointment from the County Superintendent.

Examinations for admission will be held on the same days as for the Classical Department, viz.: On the Monday and Tuesday preceding Commencement, June 17th and 18th, 1889, beginning at 10 o'clock A. M. on Monday, in the President's office. Applicants for admission may also be examined on Tuesday, September 17th, at the same hour and place; but all students who can conveniently do so, are advised to be present in June.

From certain preparatory schools of established reputation students are admitted without examination, upon the Principal's certificate that they have completed the required amount of work and are prepared to enter College. Blanks for such certificates will be furnished upon application to the Librarian, Mr. I. S. UPSON, or to the President of the College.

Students may enter an advanced class either at the beginning of the College year or at other times, on condition that they sustain a satisfactory examination both on the preliminary studies and on those already passed over by the class which they propose to enter.

Provision is made for such students as wish to devote themselves to special subjects, if they are prepared to study profitably with the regular classes in those subjects; *but special students are required to take sufficient work fully to occupy their entire time.*

The following are the subjects in which those who wish to enter the Freshman Class of the Scientific Department are examined. Since all are such as can be acquired in our best common schools, *it is insisted that the preparation in them shall be thorough and complete.* The general regulations as to conditions and their removal will be the same as those which apply to the classical course, and may be found on page 15.

1. ARITHMETIC.—Fundamental Operations; Common and Decimal Fractions; Denominate Numbers, including the Metric System; Percentage, including Interest and Discount; Proportion; Square and Cube Root.

2. ALGEBRA through Arithmetic, Geometric, and Harmonic Progressions, or the first seventeen chapters of Bowser's College Algebra.

3. PLANE GEOMETRY.—The *whole* of Plane Geometry will be required.

4. ENGLISH GRAMMAR—including Spelling.

5. DESCRIPTIVE GEOGRAPHY.

6. PHYSICAL GEOGRAPHY.

7. HISTORY OF THE UNITED STATES.—Johnston's History of the United States, or its equivalent.

Students often lack thorough or recent preparation in this subject. A more accurate knowledge of American History has become necessary as preliminary to the systematic instruction now given on the duties and relations of American citizenship.

8. Such a knowledge of Elementary PHYSICS and CHEMISTRY as may be obtained from Peck's Ganot's Physics, or Wells's Natural Philosophy, and Valentine's Twenty Lessons in Chemistry, or Cooley's or Steele's Chemistry, is required for admission.

9. A short ENGLISH ESSAY is also required, to be written at the examination, on some theme drawn from books announced in advance; the essay to be correct in spelling, punctuation, division into paragraphs, grammar and expression. In June and September, 1889, the themes will be drawn from these books, which all students who apply for admission then should have read carefully: Irving's *Sketch Book;* Shakespeare's *Julius Cæsar;* Tennyson's *In Memoriam;* Scott's *Ivanhoe.*

In preparing the student for this course, it is recommended that he be drilled thoroughly in Arithmetic, as a clear understanding of its simple elementary and practical principles is essential to a good Mathematician. His preparation in Algebra should be *very thorough.* In addition to understanding the PRINCIPLES of the science, he must fix them in his memory, and learn their bearing and utility, and for this reason he should pay great attention to the solution of practical examples. What is needed is ability to solve ordinary examples with facility and to explain them thoroughly.

Attention is specially called to the solution of Simultaneous Quadratic Equations, and of Equations of Higher Degrees than the Second, which may be reduced to the quadratic form, and then solved by the methods of solving quadratics.

2. COURSE OF STUDY.

Three distinct courses of study are included in the schedule which follows:

I. A COURSE IN CIVIL ENGINEERING AND MECHANICS.
II. A COURSE IN CHEMISTRY AND AGRICULTURE.
III. A COURSE IN ELECTRICITY.
IV. A SPECIAL COURSE IN AGRICULTURE.

During the first year the studies of the two full courses are the same, and are designed to furnish a suitable introduction to the pursuit of the higher branches in either.

ENGINEERING COURSE.

During the last three years, the students in this course are instructed in Railroad Curves, Descriptive Geometry, Analytic Geometry, Differential and Integral Calculus, Analytic Mechanics, Civil Engineering, Bridge-Building and Geodesy; and have daily practice in Draughting, with Exercises and Problems in Geometrical Constructions, in Descriptive Geometry, Topographical, Mechanical and Architectural Drawing, and in Graphical Statics.

Students in this course, and in the Chemical and Agricultural Course, in addition to the special and technical studies of their course, pursue such studies in English, Rhetoric, Elocution, French or German, Metaphysics, Moral Philosophy, the Duties of Citizenship and the Natural Sciences as are calculated to make them broadly educated and intelligent citizens, and not mere narrow specialists.

The course of study for the first year in this department is arranged so as to be complete in itself. It is especially designed to meet the wants of those who cannot take the entire four years' course, but who desire to fit themselves for Land Surveying. Students leaving at this period of the course, receive from the Faculty a certificate of their attainments.

CHEMICAL AND AGRICULTURAL COURSE.

During the last three years, the students in this course are instructed in General, Experimental, Theoretical, Organic and Applied Chemistry, Stoichiometry, Theory and Practice of Agriculture, Determinative Mineralogy, Blowpipe Analysis, Analytical Chemistry, including the Analysis of Ores, Minerals, Coals, Waters, Technological Products, Soils, Fertilizers, Agricultural Products and Foods, Poisons, Urine and Animal Products. Instruction is also given in Spectrum Analysis, and Microscopical Examination. The course of study depends, to some extent, upon the student's future pursuit in life.

ORGANIC CHEMISTRY is taught by lectures, recitations, and laboratory work. Beginning with the determination of the molecular weight of organic compounds, the student is led to examine the principles of substitution, valence and structure of organic compounds. Starting out from Methane, the various members of the Methane (mono-carbon) series are derived. When this series has been completed, the Ethane series is taken up and gone through with in the same manner. Then follow the Butane and Propane series, etc. At the end of each series a recapitulation of the typical reactions, and relations of each group is given. As the various substances are considered, their relations to vegetable and animal life and to agriculture are pointed out. Attention is also given to their practical applications, as in food, medicines, dyeing, and in manufactures generally. The lectures are accompanied by full experimental illustrations.

APPLIED CHEMISTRY.—The applications of Chemistry to the arts and manufactures are taught by lectures and text-book. Whenever it is practicable, the actual products are exhibited to the students, and the manufacturing processes reproduced in miniature. Attention is drawn to the scientific relations and connections between the various manufactures. The great losses by imperfect methods of manufacture and by waste pro-

ducts are pointed out, and the student is taught to see the true economy of production. Illustrative of the lectures, visits are made to various manufacturing establishments, of which there are a number in and about New Brunswick, and an opportunity is given to see manufacturing operations in actual working.

COURSE IN ELECTRICITY.

During the Freshman and Sophomore years the studies are the same as those of the Chemical course.

In the Junior and Senior years mechanical drill and laboratory work in Physics are substituted for advanced work in Chemistry, and for Draughting. This preparation for ordinary mechanical emergencies enables graduates to take such positions as do not demand the full mathematical equipment of a professional electrical engineer. And those who intend to pursue Electrical Engineering after graduation are furnished with the necessary practical basis. Manual skill and preference for mechanical work are prime requisites in all electrical pursuits, hence those who enter the course will be required to do the most exact work possible, and expected to show cheerful patience in tedious manipulations.

SPECIAL COURSE IN AGRICULTURE.

The Special Course in Agriculture occupies two years. In the remaining studies, the courses in Engineering, Chemistry and Agriculture are the same.

Special Students are received, and allowed to take part in the above courses, provided their previous education is sufficient; and particular provision is made for them, especially in the Laboratory, in the application of science to Agriculture, and in Mathematics, Surveying and Draughting.

Special provision is also made for students who desire, after completing the regular course of study, to take post-graduate studies.

Particular attention is at first paid by Graduate Students in

Chemistry to the preparation of pure substances and special kinds of manipulation. The students then undertake original experimental investigations in the various branches of pure and applied chemistry, under the direction of the Professor of Chemistry. The results obtained by advanced students in these investigations are from time to time published in the scientific journals.

In connection with the instruction in Agriculture in this department, the Trustees maintain an extensive model farm, designed to illustrate the principles of agriculture.

MILITARY DEPARTMENT.

In accordance with the requirements of the law, provision is made in this department for practical and theoretical military instruction.

The College is provided with Springfield rifles, equipments and rifle ammunition.

The student, upon entering College, is drilled in the School of the Soldier and is advanced, successively, to the Schools of the Company and Battalion.

Target practice with Springfield rifles is carried on during pleasant weather. During the winter, recitations in Military Tactics are held and lectures on military subjects are delivered.

ANNUAL REPORT OF THE SCIENTIFIC DEPARTMENT.

More extended information as to the studies and courses in the Scientific School will be found in the Annual Report of the New Jersey State Scientific School to the Legislature of New Jersey, which will be sent to any address on application.

3. ORGANIZATION.

This department of the College has been designated by the Legislature of New Jersey, in accordance with the law of Congress,

THE STATE COLLEGE FOR THE PROMOTION OF AGRICULTURE AND THE MECHANIC ARTS.

FREE SCHOLARSHIPS.

Under the law, a certain number of students from the State of New Jersey are received into this department of the College, and educated *free of expense for tuition*. This law also provides for the appointment by the Governor of a Board of Visitors, two from each Congressional District, who possess general powers of supervision and control. The State pupils are admitted to free scholarships on the recommendation of the Superintendent of Schools in each county and on passing the required examinations. These free scholarships are distributed among the counties in proportion to their population, as follows:

STATE SCHOLARSHIPS.

Atlantic,	1	Middlesex,	2
Bergen,	1	Monmouth,	2
Burlington,	3	Morris,	2
Camden,	2	Ocean,	1
Cape May,	1	Passaic,	2
Cumberland,	1	Salem,	1
Essex,	6	Somerset,	1
Gloucester,	1	Sussex,	1
Hudson,	6	Union,	2
Hunterdon,	1	Warren,	1
Mercer,	2		40

In June, 1888, the Trustees, to express their appreciation of the action of the Legislature in making the first appropriation yet made to further the work of the State College, voted to give to the young men of New Jersey

Ten Additional Free Scholarships "At Large."

Notice of examinations to be held in the several districts to fill vacancies which may exist in these Scholarships from time to time will be given by the State Superintendent of Education to the several County Superintendents.

Letters to the President, or to Prof. Geo. H. Cook, Vice-President, or to Mr. I. S. Upson, Librarian, inquiring about vacancies, will receive careful attention.

FRESHMAN YEAR.

Exercises during the year in Composition, Declamation and Ex Tempore Speaking. Bible-Class, Sabbath morning.

FIRST TERM.

1. FRENCH (5 hours a week).—Whitney's Practical French Grammar, Part I.
2. MATHEMATICS (5 hours a week).—Algebra completed, Bowser; Geometry, Wells.
3. BIOLOGY (2 hours a week).—Comparative Anatomy; Lectures; Physiology, Martin.
4. RHETORIC (2 hours a week).—Kellogg; Lectures.
5. ENGLISH LITERATURE (2 hours a week).—History of the Language, Meiklejohn.
6. DRAUGHTING (2 afternoons each week).—Practice in use of Instruments, Geometrical Problems and Applications.

SECOND TERM.

1. FRENCH (5 hours a week).—Keetel's Analytical French Reader; Grammar, Part II.
2. MATHEMATICS (5 hours a week).—Geometry completed; Trigonometry, Plane and Spherical, Wells.
3. BIOLOGY (2 hours a week).—Comparative Anatomy; Lectures; Physiology, Martin.
4. ENGLISH LITERATURE (3 hours a week).—History of English Literature; Study of Words, Trench.
5. DRAUGHTING (2 afternoons each week).—Plain and Colored Topography.

THIRD TERM.

1. FRENCH (5 hours a week).—Classic Authors.
2. MATHEMATICS (5 hours a week).—Surveying, Murray.
3. BOTANY (3 hours a week).—Gray's; Lectures; Excursions.
4. ENGLISH LITERATURE (2 hours a week).—English Authors.
5. DRAUGHTING (2 afternoons each week).—Mapping, with sections, etc.; Field work.

SOPHOMORE YEAR.

COURSE IN CIVIL ENGINEERING AND MECHANICS.

Exercises during the year in Composition, Declamation and Ex Tempore Speaking. Bible-Class, Sabbath morning.

FIRST TERM.

1. RAILROAD CURVES (3 hours a week).—Henck's Field-Book.
2. DESCRIPTIVE GEOMETRY (3 hours a week).—Church.
3. CHEMISTRY (3 hours a week).—Richter; Lectures, with Experiments; Austen's Lecture-Notes.
4. PHYSICS, from a FRENCH TEXT-BOOK (2 hours a week).—Ganot's Treatise on Physics, latest Paris edition.
5. HISTORY (3 hours a week).—Fisher's Outlines; Ancient History.
6. ENGLISH LITERATURE (2 hours a week).—English Authors.
7. DRAUGHTING (2 afternoons a week).—Practical Geometry, Solid; Railroad Profiles and Cross-Sections.

SECOND TERM.

1. DESCRIPTIVE GEOMETRY (3 hours a week).—Church.
2. ANALYTIC GEOMETRY (3 hours a week).—Bowser.
3. CHEMISTRY (3 hours a week).—Richter; Austen's Lecture-Notes; Lectures, with Experiments.
4. PHYSICS, FRENCH TEXT-BOOK (2 hours a week).
5. HISTORY (4 hours a week).—Fisher's Outlines.
6. ENGLISH LITERATURE (1 hour a week).—English Authors.
7. DRAUGHTING (2 afternoons each week).—Intersection of Surfaces, etc.

THIRD TERM.

1. ANALYTIC GEOMETRY (3 hours a week).—Bowser, completed.
2. SHADES, SHADOWS AND PERSPECTIVE (3 hours a week).—Church.
3. CHEMISTRY (3 hours a week).—Richter; Austen's Lecture-Notes; Lectures, with Experiments.
4. PHYSICS, FRENCH TEXT-BOOK (2 hours a week).
5. HISTORY (2 hours a week).—Fisher's Outlines.
6. ENGLISH LITERATURE (2 hours a week).—English Authors.
7. DRAUGHTING (2 afternoons a week).—Shades and Shadows; Linear Perspective, etc.

SOPHOMORE YEAR.

COURSE IN CHEMISTRY AND AGRICULTURE, AND IN ELECTRICITY.

Exercises during the year in Composition, Declamation and Ex Tempore Speaking. Bible-Class, Sabbath morning.

FIRST TERM.

1. EXPERIMENTAL CHEMISTRY (6 hours a week, first two months).—Remsen; Laboratory Practice.
2. QUALITATIVE ANALYSIS (6 hours a week, last month of term).—Nason; Lectures; Laboratory Practice.
3. CHEMISTRY (3 hours a week).—Richter; Austen's Lecture-Notes; Lectures, with Experiments.
4. PHYSICS (2 hours a week).—Ganot's Treatise on Physics, latest edition, in the French.
5. HISTORY (3 hours a week).—Fisher's Outlines; Ancient History.
6. ENGLISH LITERATURE (2 hours a week).—English Authors.
7. DRAUGHTING (2 afternoon hours a week).—Projections; Free-Hand Drawing.
8. CHEMICAL LABORATORY PRACTICE (9 afternoon hours a week).

SECOND TERM.

1. QUALITATIVE ANALYSIS (6 hours a week).—Fresenius; Lectures; Laboratory Practice.
2. CHEMISTRY (3 hours a week).—Richter; Austen's Lecture-Notes; Lectures, with Experiments.
3. PHYSICS, FRENCH TEXT-BOOK (2 hours a week).—Lectures and Experiments.
4. HISTORY (4 hours a week).—Fisher's Outlines.
5. ENGLISH LITERATURE (1 hour a week).—English Authors.
6. DRAUGHTING (2 afternoon hours a week).—Free-Hand Drawing; Intersection of Surfaces, etc.
7. CHEMICAL LABORATORY PRACTICE (9 afternoon hours a week).

THIRD TERM.

1. QUALITATIVE ANALYSIS (6 hours a week).—Fresenius; Lectures; Laboratory Practice.
2. CHEMISTRY (3 hours a week).—Richter; Austen's Lecture-Notes; Lectures, with Experiments.
3. PHYSICS, FRENCH TEXT-BOOK (2 hours a week).
4. HISTORY (2 hours a week).—Fisher's Outlines.
5. ENGLISH LITERATURE (2 hours a week).—English Authors.
6. DRAUGHTING (2 afternoon hours a week).—Shades and Shadows; Linear Perspective, etc.
7. CHEMICAL LABORATORY PRACTICE (9 afternoon hours a week).

JUNIOR YEAR.

COURSE IN CIVIL ENGINEERING AND MECHANICS.

Exercises during the year in Composition, Original Declamation and Ex Tempore Speaking. Bible-Class, Sabbath morning.

FIRST TERM.

1. MENTAL PHILOSOPHY (2 hours a week).—Porter's Elements of Intellectual Philosophy; Lectures; Essays.
2. DIFFERENTIAL CALCULUS (5 hours a week).—Bowser.
3. PHYSICS (2 hours a week).—Ganot; Lectures, with Experiments.
4. GERMAN (3 hours a week).—Whitney's Brief German Grammar.
5. HISTORY (2 hours a week).—The English Constitution.
6. MINERALOGY (2 hours a week).—Dana.
7. DRAUGHTING (2 afternoons a week).—Lettering, etc.

SECOND TERM.

1. MENTAL PHILOSOPHY AND LOGIC (3 hours a week).
2. DIFFERENTIAL CALCULUS (5 hours a week).—Completed; INTEGRAL CALCULUS—Bowser.
3. PHYSICS (2 hours a week).—Ganot; French Text-Book.
4. GERMAN (3 hours a week).—German Reader.
5. ASTRONOMY (3 hours a week).—Young.
6. DRAUGHTING (2 afternoons a week).—India Ink and Color Shading, etc.

THIRD TERM.

1. INTEGRAL CALCULUS (5 hours a week).—Completed.
2. HISTORY OF CIVILIZATION (5 hours a week).—Guizot, French Text.
3. GERMAN (4 hours a week).—Classic Authors, and a weekly Lecture on German Literature.
4. PHYSICS (2 hours a week).—Ganot, French Text.
5. DRAUGHTING (2 afternoons a week).—Construction, Copying, Tracing, Blue-Print Copying.

JUNIOR YEAR.

COURSE IN CHEMISTRY AND AGRICULTURE.

Exercises during the year in Original Composition, Declamation and Ex Tempore Speaking. Bible-Class, Sabbath morning.

FIRST TERM.

1. MENTAL PHILOSOPHY (2 hours a week).—Porter's Elements of Intellectual Philosophy; Lectures.
2. QUANTITATIVE ANALYSIS (2 hours a week).—Fresenius, Cairns; Lectures; Laboratory Practice.
3. CHEMISTRY (3 hours a week).)—Richter's Chemistry, Review, Lectures on the Theories of Chemistry.
4. PHYSICS (2 hours a week).—Ganot; Lectures, with Experiments.
5. GERMAN (3 hours a week).—Whitney's Brief German Grammar.
6. HISTORY (2 hours a week).—The English Constitution.
7. MINERALOGY (2 hours a week).—Dana.
8. DRAUGHTING (1 afternoon a week).—Lettering, etc.
9. CHEMICAL LABORATORY PRACTICE (6 afternoon hours a week).

SECOND TERM.

1. MENTAL PHILOSOPHY AND LOGIC (3 hours a week).
2. QUANTITATIVE ANALYSIS (2 hours a week).—Frenseníus, Cairns; Lectures; Laboratory Practice.
3. STOICHIOMETRY (3 hours a week).—Foye; Lectures.
4. PHYSICS (2 hours a week).—Ganot; Lectures, with Experiments.
5. GERMAN (3 hours a week).—German Reader.
6. ASTRONOMY (3 hours a week).—Young.
7. DRAUGHTING (1 afternoon a week).—Shading, etc.
8. CHEMICAL LABORATORY PRACTICE (9 afternoon hours a week).

THIRD TERM.

1. QUANTITATIVE ANALYSIS (5 hours a week).—Fresenius, Cairns; Lectures; Laboratory Practice.
2. PHYSICS (2 hours a week).—Ganot, French Text-Book.
3. HISTORY OF CIVILIZATION (5 hours a week).—Guizot, French Text.
4. GERMAN (4 hours a week).—Classic Authors, and a weekly Lecture on German Literature.
5. DRAUGHTING (1 afternoon a week).—Construction.
6. CHEMICAL LABORATORY PRACTICE (9 afternoon hours a week).

JUNIOR YEAR.

COURSE IN ELECTRICITY.

Exercises during the year in Original Composition, Declamation and Ex Tempore Speaking. Bible-Class, Sabbath morning.

FIRST TERM.

1. MENTAL PHILOSOPHY (2 hours a week).—Porter's Elements of Intellectual Philosophy; Lectures.
2. EXPERIMENTAL PHYSICS, with problems (5 hours a week).—Ganot; Stewart and Gee.
3. PHYSICS (2 hours a week).—Ganot; Lectures, with Experiments.
4. GERMAN (3 hours a week).—Whitney's Brief German Grammar.
5. HISTORY (2 hours a week).—The English Constitution.
6. MINERALOGY (2 hours a week).—Dana.
7. MECHANICAL DRILL (2 afternoons a week).—Elementary wood-working.

SECOND TERM.

1. MENTAL PHILOSOPHY AND LOGIC (3 hours a week).
2. EXPERIMENTAL PHYSICS, with problems (5 hours a week).—Ganot; Stewart and Gee.
3. PHYSICS (2 hours a week).—Ganot; Lectures, with Experiments.
4. GERMAN (3 hours a week).—German Reader.
5. ASTRONOMY (3 hours a week).—Young.
6. MECHANICAL DRILL (2 afternoons a week).—Wood-working; joinery and turning.

THIRD TERM.

1. EXPERIMENTAL PHYSICS, with problems (5 hours a week).—Ganot; Stewart and Gee.
2. PHYSICS (2 hours a week).—Ganot, French Text-Book.
3. HISTORY OF CIVILIZATION (5 hours a week).—Guizot, French Text.
4. GERMAN (4 hours a week).—Classic Authors, and a weekly Lecture on German Literature.
5. MECHANICAL DRILL (2 afternoons a week).—Elementary metal-working.

SENIOR YEAR.

COURSE OF CIVIL ENGINEERING AND MECHANICS.

Exercises during the year in Composition, Original Declamation and Ex Tempore Speaking. Bible-Class, Sabbath morning.

FIRST TERM.

1. MORAL PHILOSOPHY (4 hours a week).—Calderwood; Lectures.
2. MECHANICS (5 hours a week).—Bowser.
3. ENGINEERING (2 hours a week).—Mahan.
4. POLITICAL ECONOMY (4 hours a week).
5. DRAUGHTING (2 afternoons each week).—Machinery and Architecture.

SECOND TERM.

1. POLITICAL ETHICS AND DUTIES OF CITIZENSHIP (4 hours a week).—Lieber, Woolsey and Lectures.
2. MECHANICS (3 hours a week).—Bowser.
3. BRIDGE-BUILDING (4 hours a week).—Wood.
4. GEOLOGY (2 hours a week).—Geikie.
5. CONSTITUTION OF UNITED STATES (2 hours a week).
6. DRAUGHTING (2 afternoons a week).—Graphical Statics as applied to Bridges, etc.

THIRD TERM.

1. PRACTICAL ETHICS (4 hours a week).—Lectures.
2. GEODESY (4 hours a week).—Lectures.
3. HYDROMECHANICS (3 hours a week).—Bowser.
4. GEOLOGY (4 hours a week).—Geikie.
5. ARCHITECTURE (3 hours a week, afternoon—optional).
6. DRAUGHTING.—Thesis.

SENIOR YEAR.

COURSE IN CHEMISTRY AND AGRICULTURE.

Exercises during the year in Composition, Original Declamation and Ex Tempore Speaking. Bible-Class, Sabbath morning.

FIRST TERM.

1. MORAL PHILOSOPHY (4 hours a week).—Calderwood; Lectures.
2. APPLIED CHEMISTRY (4 hours a week).—Wagner's Technology; Lectures.
3. QUANTITATIVE ANALYSIS (3 hours a week).—Fresenius, Cairns; Laboratory Practice.
4. POLITICAL ECONOMY (4 hours a week).
5. DRAUGHTING.
6. VISITS TO MANUFACTORIES.
7. CHEMICAL LABORATORY PRACTICE (9 afternoon hours a week).

SECOND TERM.

1. POLITICAL ETHICS AND DUTIES OF CITIZENSHIP (4 hours a week).—Lieber, Woolsey and Lectures.
2. APPLIED CHEMISTRY (4 hours a week).—Wagner's Technology; Lectures.
3. ORGANIC CHEMISTRY (3 hours a week).—Remsen and Pinner-Austen; Lectures.
4. DETERMINATIVE MINERALOGY (3 afternoon hours a week).—Crosby.
5. GEOLOGY (2 hours a week).—Geikie.
6. CONSTITUTION OF THE UNITED STATES (2 hours a week).
7. DRAUGHTING.
8. VISITS TO MANUFACTORIES.
9. CHEMICAL LABORATORY PRACTICE (6 afternoon hours a week).—Quantitative Analysis.—Fresenius, Cairns.

THIRD TERM.

1. PRACTICAL ETHICS (4 hours a week).—Lectures.
2. APPLIED CHEMISTRY (3 hours a week).—Lectures on Waste Products and Unapplied Substances.
3. ORGANIC CHEMISTRY (2 hours a week).—Remsen and Pinner-Austen.
4. ASSAYING (2 hour a week) —Ricketts; Lectures; Laboratory Practice.
5. GEOLOGY (4 hours a week).—Geikie.
6. THESIS.
7. VISITS TO MANUFACTORIES.
8. ARCHITECTURE (3 hours a week, afternoon—optional).
9. CHEMICAL LABORATORY PRACTICE (8 afternoon hours a week).—Quantitative Analysis.—Fresenius, Cairns.

SENIOR YEAR.

COURSE IN ELECTRICITY.

Exercises during the year in Composition, Original Declamation and Ex Tempore Speaking. Bible-Class, Sabbath morning.

FIRST TERM.

1. MORAL PHILOSOPHY (4 hours a week).—Calderwood; Lectures.
2. PRACTICAL ELECTRICITY (7 hours a week).—Lectures; Recitations; Laboratory Practice.—Ganot; Ayrton; Stewart and Gee; Witz.
3. POLITICAL ECONOMY (4 hours a week).
4. MECHANICAL DRILL (2 afternoons).—Metal-working; fitting and turning.

SECOND TERM.

1. POLITICAL ETHICS AND DUTIES OF CITIZENSHIP (4 hours a week).—Lieber, Woolsey and Lectures.
2. ELECTRICAL TESTING (4 hours a week).—Kempe; Munroe and Jamieson.
3. ORGANIC CHEMISTRY (3 hours a week).—Remsen and Pinner-Austen.
4. CONSTITUTION OF THE UNITED STATES (2 hours a week).
5. GEOLOGY (2 hours a week).—Geikie.
6. MECHANICAL DRILL (2 afternoons).—Construction of Instruments and Machines.

THIRD TERM.

1. PRACTICAL ETHICS (4 hours a week).—Lectures.
2. THEORETICAL ELECTRICITY (4 hours a week).—Cumming.
3. ORGANIC CHEMISTRY (2 hours a week).—Remsen and Pinner-Austen.
4. GEOLOGY (4 hours a week).—Geikie.
5. ARCHITECTURE (3 hours a week, afternoon—optional).
6. DRAUGHTING.
7. THESIS.
8. VISITS TO ELECTRICAL ESTABLISHMENTS.
9. SETTING up and Testing of Model Installations, such as Central Stations for Light and Power.

SPECIAL COURSE IN AGRICULTURE.

FIRST YEAR.

First Term.—1. Algebra. 2. Geometrical Problems. 3. Inorganic Chemistry. 4. Physiology. 5. Analytical Chemistry.

Second Term.—1. Geometry. 2. Coloring and Topographical Drawing. 3. Analytical Chemistry. 4. Book-keeping. 5. Zoölogy.

Third Term.—1. Trigonometry. 2. Mapping. 3. Analytical Chemistry. 4. Botany. 5. Farm Accounts.

SECOND YEAR.

First Term.—1. Surveying. 2. Projections. 3. Physics. 4. Care and Feeding of Domestic Animals. 5. Systematic Agriculture. 6. Analytical Chemistry.

Second Term.—1. Navigation and Nautical Astronomy. 2. Architectural Drawing. 3. Physics. 4. Geology. 5. How Crops Grow.

Third Term.—1. Leveling and Road-Making. 2. Machine Drawing. 3. Meteorology. 4. Botany. 5. How Crops Feed.

Composition and Declamation throughout the course.

The hours of lectures or recitations are either three or four each day; besides work in the Chemical Laboratory, and in the Draughting Room.

Students who pass their regular examinations in the above subjects will, at the close of their course, receive certificates of their attainments. And at the end of two or more years further, if they shall have pursued practical agriculture on a farm, and shall then pass satisfactory examinations in prescribed subjects on Agricultural principles and practice before a Board of Examiners of the Scientific School, they shall receive Diplomas in Agriculture.

THE NEW JERSEY STATE AGRICULTURAL COLLEGE EXPERIMENT STATION.

By the Act of Congress of March 2d, 1887, a law was passed entitled "An act to establish Agricultural Experiment Stations in connection with the Colleges established in the several States under the provisions of an act approved July 2d, 1862, and of the acts supplementary thereto." This act is commonly known as the "Hatch Act," from the active interest taken in its passage by Hon. Wm. H. Hatch, M.C., of Missouri. It authorizes the appropriation of $15,000 annually for the support of Agricultural Experiment Stations in connection with the Colleges which were established in the several States "for the benefit of Agriculture and the Mechanic Arts," by the Congressional Act of July 2d, 1862.

The Legislature of New Jersey, by its acts of March 16th, 1887, and of March 5th, 1888, designated the Trustees of Rutgers College "as the parties to whom all moneys appropriated by Congress under said acts of Congress or supplements thereto shall be paid for the purposes mentioned in said acts of Congress." The department of Rutgers College known as Rutgers Scientific School, is, by law, the State Agricultural College. The Agricultural Experiment Station is established in connection with it.

Already the Station is organized and at work. By the cooperation of the State Experiment Station, a large and well-fitted laboratory is in process of erection, and will be ready for occupation in a few months. A Director is appointed, also investigators upon the insect enemies of plants, on the food-products of our fresh and salt waters, and their improvement, on the geology and chemistry of our soils, and the effect of tillage and fertilizers upon them. Other investigators will soon be appointed to study the diseases of plants, and the application of science to the growth of agricultural and horticultural products; and to the economic management and product of dairies.

While the main business of such a Station is in searching

after new truths, and arranging them for practical and economic use, the proper location for it is in connection with an institution of learning. Almost all our investigators are teachers. The investigation and diffusion of knowledge necessarily go hand in hand; and the example of men devoted to the searching for useful truths is stimulating to those who are yet in their preparatory studies, and are aspiring to fill well their places in life.

It is from those now preparing that our future investigators must come, and it is important that they should have those who are now in the field of work directly before them. In this respect it is believed the location of the Station at the College will be most salutary in its influence.

EXAMINATIONS.

The classes in both departments are examined at the close of each term. These examinations are partly oral and partly written, and have an important bearing upon the standing of the student in his class.

Unexpected examinations at irregular intervals are held at the discretion of each instructor. The object of these examinations is to cultivate the habit of considering the relations of each day's work to what has been done before, and to stimulate effort on the part of each student to gain a comprehensive knowledge of the subjects studied.

At the end of the first and third terms, the examinations of the classes of the Scientific Section are held in the presence of the Board of Visitors, who then make their semi-annual visits to the Institution.

At the end of the third term each member of the Graduating Class of the Scientific Section is required to present a thesis on some scientific subject, a copy of which is written out upon paper suitable for binding, and deposited in the College Library.

The final examination of the Graduating Classes is held four weeks before Commencement, from which time they are subject to such duties as are required for their preparation for Commencement.

Students who receive conditions at the June Examinations must report at College prepared to be examined upon the whole of each of the subjects on which they have conditions, at 10 A. M. on the Tuesday before College opens, in September.

GRADUATION.

To all members of the Graduating Class of the Classical Department, in full standing, the Trustees grant diplomas conferring the Academic degree of Bachelor of Arts.

To all members of the Graduating Class of the Scientific Department, in full standing, the Trustees grant diplomas conferring the Academic degree of Bachelor of Science.

To all members of the Graduating Class, in either Department, who have satisfactorily pursued special courses of study, a certificate is granted stating the studies pursued and the attainments made.

The following regulations have been adopted by the Board of Trustees regarding the graduating exercises at Commencement:

1. The privilege of speaking at Commencement shall be limited to eight men, and shall be open without distinction to the Classical and Scientific Sections of the graduating class.

2. The graduating honors shall be as follows:

First Honor, ...	Valedictory.
Second Honor, ...	Latin Salutatory.
Third Honor, ...	Philosophical Oration.
Fourth Honor, ...	Scientific Oration.

3. These honors and orations shall be awarded in the order named, according to grade made up of the combined marks in all the subjects of the course.

4. An oration to be known as the RHETORICAL HONOR shall be awarded to that member of the class who shall have received the highest grade in Composition and Elocution during the Junior and Senior years, *provided* he rank in general grade of scholarship among the first half of his class.

In case the Rhetorical Honor shall fall to one who has also taken one of the four honors for scholarship, an additional speaker shall be appointed according to general grade as fifth in scholarship.

5. Three other orations shall be awarded according to grade in Composition and Elocution, during the Junior and Senior years, *provided* the recipients rank among the first two-thirds of the class in general grade of scholarship.

DEGREES AND POST-GRADUATE STUDIES.

The degrees of A.M. and M.S. are no longer given "in course," but only for work done.

The Faculty will recommend for the degree of Master of Arts or Master of Science candidates otherwise properly qualified, who, after taking the appropriate Bachelor's degree—

1. Shall pursue for at least one year at Rutgers College a course of liberal and non-professional study, approved by the Faculty, and shall, beside the term examinations, pass a thorough examination on that course and present a thesis on some topic connected with it; or,

2. Who, not less than three years after taking the Bachelor's degree at Rutgers College, shall make application for the Master's degree, presenting at the same time a certificate of graduation from a Theological Seminary, a Law School or a Medical School, or of admission to the practice of Law or Medicine; or,

3. Satisfactory evidence of successful labor in that field of education or literature which may have been permanently chosen; or,

4. In case of Bachelor of Science, satisfactory evidence of successful professional work actually done and advanced professional studies prosecuted.

The degrees of Ph.D. and D.Sc., may be conferred upon resident graduates of the College who shall pursue for two years prescribed courses of study under the direction of the Faculty.

The conditions will be made known on application.

The degree of Civil Engineer is a professional one, and is, on application, conferred upon graduates of the College who have taken the degree of Bachelor of Science, and subsequently have passed three years in the practice and study of engineering, with results satisfactory to the Faculty.

The applicant is required to furnish a statement of the work upon which he has been engaged, and to present a thesis or discussion of some engineering work which he has done. The application and thesis must be presented to the Secretary of the Faculty at least one month before Commencement.

REGULATIONS.

Morning prayers are attended in the College Chapel each morning, except Saturday and Sunday, at 8:40 o'clock.

The recitation hours extend from 9 o'clock A. M. to 12 M., or 1 o'clock P. M., during five days of the week.

A Bible-Class is held Sabbath morning in the College Chapel at 9:30 o'clock. All students are required to attend it.

A sermon is preached every Sabbath morning in the College Chapel at 10:30 o'clock. Students are required to be present.

They are expected, also, to attend public worship in the afternoon or evening, at such place as their parents or guardians may direct.

No student is allowed to leave the city during term time without permission from the Division Officer.

Excuses for absence from all College duties must be obtained from the Division Officer.

Unexcused absences are reported to the Faculty; and a student is not allowed to make up the recitations omitted, but receives 0 as a mark.

Recitations (except in case of "Electives") are marked on a scale of 100, and the average standing of each student is made up at the end of each term, and sent to his parent or guardian. A mark at examination counts as much as one-third of the term's work up to the time of examination.

If the grade of a student in any term falls below 60 per centum of the maximum in one of his studies, he is conditioned in that study, and must be re-examined therein.

If the average of any student in any study at any time falls below 60 per centum of the maximum grade, his case must be acted on as the Faculty shall deem necessary.

If any student's average grade in any term falls below 60 per centum of the maximum, he loses his standing in his class, and is required to fall back a year in the course. If his work is not satisfactory after a month's trial here, he is dismissed from College.

Marks given in ELECTIVE work do not enter into the computation of grade; and the only official report of work done in Electives is the announcement, at the end of each term, in each student's report, that he has "failed" or "passed," or "passed with honor," in each of his elective courses.

If any student is found to be notably deficient in his daily recitations, or at the examination in any of his studies, his case is reported to the Faculty, and such action by way of discipline is taken as may be deemed necessary.

No student can be promoted to an advanced class until all his deficiencies are made up; and if he fails to make up all his deficiencies *before the opening of the College year*, he is required to go back a year in his course. Examinations for making up such deficiencies are held *on the Tuesday before the opening of the Autumn Session in September, at 10 A. M.*

COLLEGE EXPENSES.

FEES.

Tuition, per annum,	$75 00
Incidentals—Janitor, Fuel, etc., per annum,	8 00
Reading Room, per annum,	2 00
Admission Fee,	5 00
Graduation Fee,	7 50
Analytical Chemistry, extra, per term,	15 00
Electricity, extra, per term, Junior and Senior years,	10 00

Of the above expenses, the admission fees are payable, on entrance, to the College Treasurer; the incidental expenses are payable at the beginning of the first term, in September; of the tuition fees, one-third, viz., $25, is payable within ten days after the beginning of each term. All checks should be made payable to the Treasurer of Rutgers College.

Students in Analytical Chemistry are charged $15 additional per term, for chemicals and use of Laboratory, which amount must be paid within ten days after the beginning of the term. They are also expected to provide themselves, at their own expense, with the necessary sets of apparatus, which may be obtained from the regular apparatus dealers, or from the Laboratory Supplies department. These sets are retained through the year, but at the end of it, if the owners do not wish to keep them, they will be purchased at a fair price. If proper care has been exercised, a small discount only (about 10 per cent.) from the original cost will be made. All breakage will be charged in full.

Similar regulations are in effect for students in Electricity.

BOARD.

Board, with furnished room, can be obtained in New Brunswick at the present time for $4 to $7 per week; board without

rooms for $3 to $5 per week. Students having the ministry in view may obtain rooms in Hertzog Hall, in the Theological Seminary, free of charge. These rooms are heated and lighted.

The Faculty are empowered to pass such regulations relative to the number of boarders in each house as they think proper; and students shall board only at such places as are approved by them.

By combining in clubs, students are able to reduce somewhat their expense for board.

Free scholarships and pecuniary assistance may be given to young men of approved character and ability, whose family circumstances are such as to make this assistance necessary. No deserving student who has shown perseverance and capacity is allowed to give up his course for lack of assistance.

BENEFICIARY AID.

1. Van Benschoten Fund.

This fund, the gift of the Rev. Elias Van Benschoten, in 1814, amounting to $20,813, was given in trust jointly to the General Synod of the Reformed Church and the Trustees of Rutgers College, to aid in the education of indigent students for the ministry. The students who enjoy the benefits of this fund are appointed by the Trustees of the College on the nomination of the General Synod of the Reformed Church, and receive $150 annually.

2. Knox Fund.

This fund, consisting of $2,000, was given by Mrs. Rebecca Knox, of Philadelphia, in 1815, to the Trustees of Rutgers College, the income from it to be expended for the support of one student in the Theological Seminary.

3. W. H. Smock Fund.

William H. Smock, of Marlboro, N. J., left by his will, to the Trustees of Rutgers College, the sum of $500, to be invested as a fund, the interest of which should be used to aid in the education of young men for the ministry. This legacy was received in 1859, and has been since that time duly employed for the purpose named.

4. Mandeville Fund.

In 1865, the Trustees of Rutgers College received from the executor of the will of William Mandeville, of New York City, the sum of $2,000; said sum to be invested, and the income thereof to be applied to the support of a theological student in the College.

5. Voorhees Fund.

Abraham Voorhees, of Franklin Park, N. J., bequeathed by his will $26,000 to the Trustees of Rutgers College, the income of which is to be expended in aiding worthy young men who are candidates for the ministry, while pursuing their studies in Rutgers College. A grant of $200 per annum is made to the students thus receiving aid.

6. Free State Scholarships.

The law of the State of New Jersey granting to the Scientific Department of Rutgers College the Agricultural College Endowment provides for the education of forty State students free of expense for tuition. These scholarships are distributed among the counties in proportion to their population, and the appointments to fill vacancies are made by the County Superintendent. The appointment gives the right to a course of instruction of four years in Rutgers Scientific School, on successfully passing the entrance examinations. The Trustees of the College, in 1888, voted 10 additional scholarships "at large" for students from New Jersey in the Scientific School.

7. Board of Education.

The Board of Education of the Reformed Church grants aid to young men preparing for the ministry in the denomination. The conditions are that the persons receiving aid shall have been members of some Evangelical Church one year, and at the time members of some Reformed Church. The aid may be obtained either while in College or in the Theological Seminary.

At present the amount given is $150 per annum. Information may be had by addressing the Secretary of the Board, 26 Reade St., New York.

8. Rooms for Students.

Such rooms in Peter Hertzog Hall as may not be required for the use of the students of the Theological Seminary, are allowed to be occupied by the students of the College who have the ministry in view, and on the same conditions as the members of the Theological Seminary, *i. e.*, free of charge.

PRIZES AND HONORS.

In every case where it is expected that a prize will be awarded for work done, it is distinctly announced that unless in the opinion of the examiners the work submitted is of such excellence as to merit a prize or prizes, no prize will be awarded.

All prizes and honors are open equally to members of the Classical and Scientific Departments, except in cases where prizes are specifically limited to one department by the donor. Each competitor for a prize must sign a written declaration that the essay or other work offered by him is his original and unaided work. The essays are to be written on a paper of a

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The conditions will be made known on application.

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The applicant is required to furnish a statement of the work upon which he has been engaged, and to present a thesis or discussion of some engineering work which he has done. The application and thesis must be presented to the Secretary of the Faculty at least one month before Commencement.

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No student is allowed to leave the city during term time without permission from the Division Officer.

First. "That those who offer themselves as candidates for it shall be subjected to a special examination, at a time to be fixed by the Faculty near the close of the Senior year."

Second. "That the subject of the examination be a passage or play of some Classical author (not included in the College programme of studies), to be selected by the Classical Professors, and to be announced at least one month before the time fixed for the examination."

Third. "A subject for an essay shall be announced at the same time, and the essay shall be given in on the day of examination."

Fourth. "Both the examination and the essay shall be taken into account in the adjudication of the prize. A law copy of the essay of the prize man shall be handed in by him before the medal is put into his hands, to be preserved among the archives of the College."

Subject for examination for 1888—Books I., II., III. of Aristotle's Politics. Thesis for essay, to be written in Greek, "The Political Status of Women in the Republic of Plato." The prize was awarded to MELVIN D. BRANDOW, of Hornellsville, N. Y.

The subject for 1889 will be announced at the beginning of the Second Term, January, 1889.

4. Bradley Mathematical Prize.

This prize is given by Hon. Joseph P. Bradley, LL.D., and consists of a valuable Mathematical work, which is to be bestowed on the student of the Senior Class who shall present the best solution of a set of Mathematical problems to be proposed to the class by the Professor of Mathematics before the close of the second term.

The prize was, in 1888, awarded to ISAAC W. REYNOLDS, Montrose, N. Y.

5. Myron W. Smith Prizes.

These prizes were founded by Lyndon A. Smith, M.D., of Newark, in the name of his son, Adjutant Myron W. Smith,

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All prizes and honors are open equally to members of the Classical and Scientific Departments, except in cases where prizes are specifically limited to one department by the donor. Each competitor for a prize must sign a written declaration that the essay or other work offered by him is his original and unaided work. The essays are to be written on a paper of a

prescribed kind, and the successful essay is to be deposited in the College Library, before the writer is entitled to the prize. They are as follows:

1. Suydam Prize for Composition.

This prize, the gift of James Suydam, Esq., is a gold medal of the value of thirty dollars, or that sum in money, and is to be given to the member of the Senior Class who shall write the best English Composition on the subject assigned to the class by the Professor of Rhetoric. Competitors must hand in their compositions on or before April 18th. The student to whom the prize is awarded must copy his composition upon paper furnished by the College, and present it for preservation in the Library, before he can receive the prize.

Subject for 1888: "Mnemonic Systems: are they a Benefit or an Injury to the Mind?" The prize was awarded to HARMON B. NIVER, of Ancram Lead Mines, N. Y.

Subject for 1889: "The Scottish School of Philosophy: its Founders, Characteristics and Influence."

2. Suydam Prize in Natural Science.

This prize, the gift of James Suydam, Esq., is a gold medal of the value of thirty dollars, or that sum in money, and is to be awarded to the member of the Senior Class who shall have made the greatest attainments in Natural Science. The examination is upon all the subjects of Natural Science in the College course, and is conducted by the Professors in those subjects. The questions and answers are required to be written.

The prize was, in 1888, awarded to OSCAR M. VOORHEES, of Bedminster, N. J.

3. Brodhead Classical Prize.

This prize is the gift of Rev. Dr. Jacob Brodhead and his son, J. Romeyn Brodhead, LL.D. It is the interest on $500, *i. e.*, thirty dollars, to be given to the best Senior Classical scholar on the following conditions:

First. "That those who offer themselves as candidates for it shall be subjected to a special examination, at a time to be fixed by the Faculty near the close of the Senior year."

Second. "That the subject of the examination be a passage or play of some Classical author (not included in the College programme of studies), to be selected by the Classical Professors, and to be announced at least one month before the time fixed for the examination."

Third. "A subject for an essay shall be announced at the same time, and the essay shall be given in on the day of examination."

Fourth. "Both the examination and the essay shall be taken into account in the adjudication of the prize. A law copy of the essay of the prize man shall be handed in by him before the medal is put into his hands, to be preserved among the archives of the College."

Subject for examination for 1888—Books I., II., III. of Aristotle's Politics. Thesis for essay, to be written in Greek, "The Political Status of Women in the Republic of Plato." The prize was awarded to MELVIN D. BRANDOW, of Hornellsville, N. Y.

The subject for 1889 will be announced at the beginning of the Second Term, January, 1889.

4. Bradley Mathematical Prize.

This prize is given by Hon. Joseph P. Bradley, LL.D., and consists of a valuable Mathematical work, which is to be bestowed on the student of the Senior Class who shall present the best solution of a set of Mathematical problems to be proposed to the class by the Professor of Mathematics before the close of the second term.

The prize was, in 1888, awarded to ISAAC W. REYNOLDS, of Montrose, N. Y.

5. Myron W. Smith Prizes.

These prizes were founded by Lyndon A. Smith, M.D., of Newark, in the name of his son, Adjutant Myron W. Smith,

who was a graduate of the College, and who gave his life in the late war to the cause of his country. They consist of the interest of $500, proportionately appropriated to two medals, one of gold and the other of silver, which are to be awarded respectively to the best and second-best speakers of the Sophomore Class. Only those students who shall have pursued, in the College, the regular studies of the classical or a full scientific course from the beginning of the Freshman year, shall be allowed to contend for these prizes.

The competition for these medals shall take place before a committee of the Faculty, when the best and second-best speakers shall be selected, to whom the medals shall be awarded, and six others shall receive honorable mention in their order of excellence. The medals shall be presented at Commencement.

In 1888, the first of these prizes was awarded to HENRY J. SCUDDER, of Saugerties, N. Y.; the second prize to S. WARD RIGHTER, of Boonton, N. J.

6. Tunis Quick Prize in Spelling and English Grammar.

This prize, the gift of P. Vanderbilt Spader, Esq., of New Brunswick, is the income of $300, at 6 per centum, and is to be presented to that member of the Freshman Class, Classical or Scientific, who shall pass the best examination in Spelling and English Grammar.

The examination is to be conducted in writing by the Professor of English Literature, at as early a day as convenient in the second College term, and under such regulations as the Faculty may from time to time establish.

The prize may be withheld from any and all papers offered, either for want of merit or for failure of proper competition. In case the prize be not awarded in any year, it is to be offered one year later to the members of the same class, on the same conditions as at first.

All regulations as to time, manner and conditions of awarding the prize are subject to change by the Board of Trustees.

It was awarded, in 1888, to REID F. MILLER, of Sacramento, Cal.

7. Peter Spader Prizes in Modern History.

These prizes, the gift of P. Vanderbilt Spader, Esq., are two in number, the income of $400 and $300, respectively, at 5 per centum, and are to be awarded to those members of the Sophomore Class, Classical or Scientific, who shall present the best essays on some subject in Modern History, selected by the Professor of History, with the approval of the Faculty.

The subject is to be announced at the close of the Freshman year, and the competing essays are to be handed in on or before the last Monday in May of the Sophomore year.

The Committee annually appointed by the Faculty may decline to award these prizes, or either of them, for want of merit in the essays, or for failure of proper competition. In case the prizes be not awarded in any year, they are to be offered one year later to the members of the same class, on the same conditions as at first.

All regulations as to time, manner and conditions of awarding the prizes are subject to change by the Board of Trustees.

Subject for 1888: "The History of Slavery in New York, New Jersey and Pennsylvania." The first prize was awarded to WARREN R. SCHENCK, of New Brunswick; the second to ARTHUR F. MABON, of New Brunswick.

Subject for 1889: "Physical Features as Determining the Origin and Character of the Settlement of the Various Portions of North America."

8. Appleton Memorial Prize in Moral Philosophy.

This prize was founded by a gift of $500, from the Rev. Samuel E. Appleton, D.D., in the name of his mother, Mrs. Elizabeth Appleton. It consists of thirty dollars, the interest of the above sum, and will be given "to the member of the Senior Class who shall pass the best examination in Moral Philosophy."

Subject for 1888: A written and an oral examination upon Calderwood's Hand-Book of Moral Philosophy. The prize was awarded to HARMON B. NIVER, of Ancram Lead Mines, N. Y.

Subject for 1889: The same.

9. Bowser Engineering Thesis Prize.

A prize consisting of a valuable Engineering work is given by Prof. E. A. Bowser, LL.D., to that member of the Engineering Section of the Senior Scientific Class who shall present the best Thesis upon some Engineering subject at graduation. (This prize has been given annually by Prof. Bowser since 1875.)

The prize was, in 1888, awarded to ISAAC W. REYNOLDS, of Montrose, N. Y.

10. John Parker Winner Memorial Prize in Mental Philosophy.

This prize consists of twenty-five dollars, given by John Winner, Jr., and his wife, in memory of their deceased son, John Parker Winner. It will be open to competition for students in both the Classical and Scientific Sections who are pursuing the Study of Mental Philosophy, and will be bestowed on the one who shall pass the best examination on some work assigned by the Professor of Metaphysics.

Work for 1888: Berkley's Principles of Knowledge, Dr. Krauth's Edition, pages 72–122, and 193–281.

The prize was awarded, in 1888, to JOHN T. E. DE WITT, of Wallkill, N. Y.

Work for 1889, the same as for 1888.

11. Wm. H. Van Doren Prize for the best Essay on Christian Missions.

This prize consists of twenty dollars, the gift of the Rev. William H. Van Doren, D.D. It is open to competition for members of the Senior and Junior Classes in both sections, and for members of the Theological Seminary.

In 1888 it was awarded to OSCAR M. VOORHEES, of Bedminster, N. J., of the Class of '88.

12. Junior Exhibition.

Eight members of the Junior Class are chosen each year, in equal numbers from the Peithessophian and Philoclean Literary

Societies, who deliver original speeches at an exhibition held on the Tuesday evening preceding Commencement. The selection is made by a committee of three persons, of whom one is chosen by each Society and a third by the Faculty, and is based upon relative excellence as writers and speakers.

This prize, the gift, in 1888, of Ralph N. Perlee, Esq., was awarded to MAURICE J. THOMPSON, of New Brunswick.

13. Hart Prize in English Literature.

A prize of twenty-five dollars is offered to the members of the Sophomore Class for the best essay upon a subject in Literature; the theme is assigned by the Professor of that Department, and the prize is awarded by a committee appointed by him.

Subject for 1888: "Cowper." The prize was awarded to HOWARD ELTING, of Gardiner, N. Y.

Subject for 1889: "Washington Irving."

14. The Bussing Prizes for Ex Tempore Speaking.

Mrs. Ann Bussing, of New York City, has given to the College $1,000, the income of which (fifty dollars per annum) is to be expended each year for books, which shall be selected by the President of the College, and given as follows: The First Prize, of thirty dollars, to that member of the Senior Class who shall prove himself to be the best extemporaneous speaker; the Second Prize, twenty dollars, to the second-best extemporaneous speaker of the Senior Class. The prizes are to be awarded by the Faculty of the College, or by a committee whom they shall name, and shall be awarded after a public debate to be held in the latter part of the College year. In awarding the prizes, "strict attention shall be given to logical and forcible presentation of thought, full and accurate information as to matters of fact, and grace and effectiveness in delivery." For the sake of training students in the clear expression of intelligent thought upon matters of public interest, each class has an exercise in *ex tempore* speaking twice in each term. The subject is announced to the class, and, after five minutes for thought, the members of

the class discuss the subject or debate the question before a committee.

The First Prize was awarded, in 1888, to HERBERT G. SHARPLEY, of Pella, Iowa; the Second to EDWIN M. ALDEN, of Metuchen, N. J.

15. Van Vechten Prize—Essay on Christian Missions.

A. V. W. Van Vechten, Esq., of New York, has founded, in honor of his mother, the late Louisa Van Vechten, and his father, Rev. Dr. Samuel Van Vechten, a prize of sixty dollars, by the gift of $1,000, the prize "to be given annually to that student of Rutgers College who shall be adjudged by the Faculty of the Theological Seminary of the Reformed Church of America, at New Brunswick, to have presented an article, original with himself, and the best submitted—the most conclusive and inspiriting to strengthen faith in and love for Foreign Missions." Essays to be presented on or before May 1st of each year.

The prize, in 1888, was awarded to OSCAR M. VOORHEES, of Bedminster, N. J.

16. Liebig Prize for Best Chemical Thesis.

A prize of $25, or equivalent value in books, will be given by Prof. P. T. Austen, F.C.S., to that student of the Chemical Section of the Graduating Scientific Class whose thesis, embodying the results of his study and Laboratory work, shall be adjudged to be worthy of the prize.

17. The Class of 1876 Prize Fund for the Encouragement of the Study of Political Philosophy.

The Class of 1876 have given to the College, five hundred dollars ($500) as the foundation of a Prize Fund (which they express the hope that they may increase from time to time, until it shall be sufficiently large to establish a Fellowship), for the encouragement of the study of Political Philosophy. The income of this fund is to be awarded each year "to that member

of the Senior Class (either Classical or Scientific) who shall be adjudged entitled to it, * * * on the basis of an original essay on some subject in Political Philosophy, assigned by the Professor of that science in the College, and upon a competitive examination in a text-book also selected by him;" the committee of award to consist of "three competent persons selected by the Faculty of the College, at least one member of the committee to be a member of the Class of 1876 as long as any may be living."

18. Honorable Mention for Work outside the Course done Without Reference to a Prize.

For the encouragement of independent reading and study and original investigation, under the direction of the Faculty, honorable mention is made of students who give evidence of thoroughness in such work, and pass a satisfactory examination.

Mr. PATRICK AUGUSTINE RAY, of the Class of 1891, receives honorable mention for work done and examinations passed on two hundred pages of Lucian; Twenty-second Book of Livy.

LIBRARY.

The Library of the College is open for consultation during each term as follows: On Mondays, Tuesdays, Wednesdays, Thursdays and Fridays, from 8 to 8:40 A. M., and from 12 M. to 12:50 P. M., and from 2 P. M. to 4:30 P. M.; on Saturdays from 9 A. M. to 12:50 P. M., and from 2 to 4:30 P. M. Students are allowed free access to the books, and are encouraged to become familiar with the proper methods of using a library for literary work.

In 1887, P. VANDERBILT SPADER, Esq., of New Brunswick (a member of the Class of 1849), gave to the College his personal library, valued at $15,000, and consisting of about

5,000 books, among them many very valuable art volumes, and collections especially rich in State and local history, and in books of reference.

In addition to this generous gift, there have been added to the Library during the past year some 1,500 volumes, chiefly from the income of the PRUYN FUND (given by General ROBERT H. PRUYN, of Albany, N. Y.)

By the gift of a permanent fund of $1,000 from JAMES SUYDAM, Esq., supplemented by gifts from other sources, the Library is supplied with the leading periodical publications in the various departments.

By the courtesy of the Theological Seminary of the Reformed Church, the SAGE LIBRARY of more than 40,000 volumes is opened to the students of Rutgers for consultation; and under certain limitations books are drawn from it as well. It is within three minutes' walk of the College campus.

MUSEUM AND APPARATUS.

The Trustees solicit contributions from the friends of the College to the collections of the Museum. It is their wish to increase greatly the present valuable collections by additions in all departments. Donations of specimens illustrating Geology, Mineralogy, Natural History, Numismatics and Antiquities, and the Industrial Arts, are earnestly requested. Ample rooms are provided in the new Geological Hall for the proper preservation and display of such specimens. By the kindness of numerous friends, suitable cases have been provided to receive the collections which the College already possesses, and they are now being arranged as rapidly as circumstances will allow.

The apparatus of the College for illustrating the various branches of science is extensive and serviceable. It has been obtained as the wants of the classes demanded, and comprises

many recent additions to the Chemical and Philosophical apparatus. The students in Analytical Chemistry are provided with the requisite facilities for making analyses. The arrangements for these departments in the buildings recently erected are of the most ample and convenient description.

CATALOGUES.

Former students of the College, whether graduates or not, are earnestly requested to keep the College informed of any change in their address or occupation, of works published, offices held, etc., both to facilitate the sending of the annual catalogue, and to furnish material for general catalogues, when printed. Catalogues of the College, etc., will be sent to alumni or friends of the College who send to the Secretary their addresses, for this purpose.

It is desired to secure for the Library a complete set of all the publications issued by the College or relating to it, or written or compiled by any one in connection with it, whether periodical or occasional. A complete collection of *Rutgersensia* would be of great value to the College and its friends.

Quinquennial (General) Catalogue.

Acting under a resolution of the Board of Trustees, the Librarian of the College, IRVING S. UPSON, A.M., collected materials for a General Catalogue, which was published in April, 1886, and includes the names of all the alumni and students of the College to the Class of 1885.

Alumni and friends are requested to notify the Librarian of the death of any of the alumni, of changes of residence, etc., and of any errors, however slight, that may have been detected in the General Catalogue of the Alumni.

REGISTER.

1. SOPHOMORE ORATORS, CLASS OF 1890.

HENRY JOHNSTON SCUDDER,	Saugerties, N. Y.
STEPHEN WARD RIGHTER,	Boonton, N. J.

The following are named in the order of their appointment according to merit:

GARRET J. FOLMSBEE,	South Shodack, N. Y.
HOWARD W. ENNIS,	Albany, N. Y.
ARTHUR F. MABON,	New Brunswick, N. J.
WARREN R. SCHENCK,	New Brunswick, N. J.
JOHN S. VAN ORDEN,	Spring Valley, N. Y.
LOUIS W. STOTESBURY,	Matteawan, N. Y.

2. JUNIOR ORATORS, CLASS OF 1889.

JUNIOR EXHIBITION, JUNE 19, 1888.

PEITHESSOPHIAN SOCIETY.	PHILOCLEAN SOCIETY.
W. W. HALLOCK, Brooklyn, N. Y.	G. V. W. DURYEE, Jersey City, N. J.
KUMA OISHI, Tokio, Japan.	E. W. THOMPSON, Readington, N. J.
*C. G. SCUDDER, Vellore, India.	G. B. THOMPSON, Colt's Neck, N. J.
C. J. SCUDDER, Saugerties, N. Y.	M. J. THOMPSON, New Brunswick, N. J.

3. GRADUATING EXERCISES, CLASS OF 1888.

COMMENCEMENT, JUNE 20, 1888.

HONORS.

SHERMAN GRANT PITT,	Crary's Mills, N. Y.
Valedictory.	
OSCAR MCMURTRIE VOORHEES,	Bedminster, N. J.
Latin Salutatory, Second Honor.	
MELVIN DAY BRANDOW,	Hornellsville, N. Y.
Philosophical Oration, Third Honor.	
WILLIAM ARMITAGE BEARDSLEE,	West Troy, N. Y.
Scientific Oration, Fourth Honor.	
OSCAR MCMURTRIE VOORHEES,	Bedminster, N. J.
Rhetorical Honor.	

*Died May 12th, 1888, after having received the appointment.

ORATIONS.

HARMON BAY NIVER,	Ancram Lead Mines, N. Y.
JOHN HOWARD VOORHEES,	Middlebush, N. J.
WILLIAM JAMES LANSLEY,	Elizabeth, N. J.
FREDERICK HUTCHINSON COOK,	Bound Brook, N. J.
EDWIN MOORE ALDEN,	Metuchen, N. J.

The following gentlemen received appointments to speak at this Commencement, but voluntarily relinquished their privilege for the sake of shortening the exercises:

ISAAC WRIGHT REYNOLDS,	Montrose, N. Y.
RICHARD DONNE DIVINE,	Elizabeth, N. J.
HENRY WATKINS LOCKETT,	Cranford, N. J.
HERBERT GILES SHARPLEY,	Pella, Iowa.
FERDINAND SCHENCK WILSON,	Millstone, N. J.
CHARLES STERLING WYCKOFF,	Woodhaven, N. Y.

MASTER'S ORATION.

REV. WILLIAM HENRY BOOCOCK, '85, . . Flatbush, N. Y.

4. DEGREES CONFERRED.

Degree of Bachelor of Arts Conferred on Candidates in Course.

WILLIAM ARMITAGE BEARDSLEE.
MELVIN DAY BRANDOW.
FREDERICK HUTCHINSON COOK.
FRANK LAWYER MAYHAM.
HARMON BAY NIVER.
FREDERICK WILLIAM PARKER.
SHERMAN GRANT PITT.
HERBERT GILES SHARPLEY.
JOHN HOWARD VOORHEES.
OSCAR MCMURTRIE VOORHEES.
FERDINAND SCHENCK WILSON.
CHARLES STERLING WYCKOFF.

Degree of Bachelor of Science Conferred on Candidates in Course.

EDWIN MOORE ALDEN.
RICHARD DONNE DIVINE.
WILLIAM JAMES LANSLEY.
HENRY WATKINS LOCKETT.
ISAAC WRIGHT REYNOLDS.
EDWARD AUSTIN WALDRON.

Degree of Master of Arts Conferred.

JOHN LANE CONNET, '71.
JOHN MITCHELL ALLEN, '85.
WILLIAM HENRY BOOCOCK, '85.
WILLIAM EDWIN FLORANCE, '85.
EDWIN KNICKERBOCKER LOSEE, '85.
ADRIAN VERMEULE, JR., '85.
LOUIS AUGUSTUS VOORHEES, '85.

Degree of Master of Science Conferred.

FRANK VAN BRAKLE, '85.

Degree of Civil Engineer Conferred.

ASHER ATKINSON, '85.

Honorary Degrees Conferred.

D.D.—REV. GRAHAM TAYLOR,	Hartford, Conn.,	Class of 1870.
LL.D.—JUDGE HENRY W. BOOKSTAVER,	New York City,	Class of 1859.

5. PRIZES AWARDED, COMMENCEMENT, 1888.

GENERAL PRIZES.

Van Vechten Prize for Essay on Foreign Missions,	O. M. VOORHEES.
Van Doren Prize for Essay on Christian Missions,	O. M. VOORHEES.

SENIOR PRIZES.

Suydam Prize for Composition,	H. B. NIVER.
Suydam Prize for Natural Science,	O. M. VOORHEES.
Brodhead Classical Prize,	M. D. BRANDOW.
Bradley Mathematical Prize,	I. W. REYNOLDS.
Appleton Prize for Moral Philosophy,	H. B. NIVER.
Bowser Prize for Best Thesis,	I. W. REYNOLDS.
Bussing Prize for Extemporaneous Debate, 1st,	H. G. SHARPLEY.
Bussing Prize for Extemporaneous Debate, 2d,	E. M. ALDEN.

JUNIOR PRIZES.

John Parker Winner Memorial Prize for Mental Philosophy,	J. T. E. DE WITT.
Perlee Junior Orator Prize,	M. J. THOMPSON.

SOPHOMORE PRIZES.

Myron W. Smith Prize for Declamation, 1st,	H. J. SCUDDER.
Myron W. Smith Prize for Declamation, 2d,	S. W. RIGHTER.
Hart English Literature Prize,	HOWARD ELTING.
Spader Prize for Modern History, 1st,	W. R. SCHENCK.
Spader Prize for Modern History, 2d,	A. F. MABON.

FRESHMAN PRIZES.

Quick Prize,	R. F. MILLER.
Sloan Entrance Examination Prize, 1st,	C. S. JOHNSON.
Sloan Entrance Examination Prize, 2d,	HARRY LOCKWOOD.

6. CLASS-DAY EXERCISES.

CHAPEL.

President,	F. L. MAYHAM, Belleville, N. J.
Oration,	E. M. ALDEN, Metuchen, N. J.
Poem,	H. B. NIVER, Ancram Lead Mines, N. Y.
Class History,	M. D. BRANDOW, Hornellsville, N. Y.
Class Prophecy,	J. H. VOORHEES, Middlebush, N. J.
Address to Undergraduates,	S. G. PITT, Crary's Mills, N. Y.
Presentation of Class Mementoes,	F. W. PARKER, New Brunswick, N. J.

CAMPUS.

Ivy Oration,	F. S. WILSON, Millstone, N. J.
Ivy Planter,	E. A. WALDRON, New Brunswick, N. J.
Ivy Ode,	W. A. BEARDSLEE, West Troy, N. Y.
Pipe Oration,	E. A. WALDRON, New Brunswick, N. J.
Address to the President,	O. M. VOORHEES, Bedminster, N. J.

7. ALUMNI ASSOCIATION.

OFFICERS FOR THE YEARS 1888, 1889.

REV. JOHN A. TODD, D.D., Class of '45,	President.
JAMES S. AITKIN, ESQ., Class of '54,	Vice-Presidents.
REV. JUDSON H. HOPKINS, Class of '50,	Vice-Presidents.
WILLARD P. VOORHEES, ESQ., Class of '71,	Vice-Presidents.
REV. PHILETUS T. POCKMAN, Class of '75,	Vice-Presidents.
THEODORE B. BOORAEM, ESQ., Class of '81,	Treasurer.
JOHN S. VOORHEES, ESQ., Class of '76,	Secretary.
IRVING S. UPSON, A.M., Class of '81,	Biographer.
HENRY A. NEILSON, ESQ., Class of '73,	Inspectors of Election of Alumni Trustees.
FREDERICK P. HILL, ESQ., Class of '83,	Inspectors of Election of Alumni Trustees.
ALAN H. STRONG, ESQ., Class of '74,	Inspectors of Election of Alumni Trustees.
HON. CHARLES H. WINFIELD, Class of '52,	Orator Primarius.
L. LAFLIN KELLOGG, ESQ., Class of '70,	Orator Secundus.

8. VEDDER LECTURERS.

REV. ALAN D. CAMPBELL, 1889,	Castleton, N. Y.
REV. JOHN A. DE BAUN, D.D., 1890,	Fonda, N. Y.

RUTGERS COLLEGE GRAMMAR SCHOOL.

NEARLY $9,000 HAS BEEN SPENT IN REFITTING AND IMPROVING THE BUILDINGS THIS LAST SUMMER.

LOCATION.

The location of a thorough preparatory school in a city like New Brunswick is most fortunate. On the Pennsylvania R. R., *it is easy of access for those living in adjacent towns, who wish to attend the school as day pupils.* The influences of a college town are excellent for intellectual work. Often parents send their sons to be trained in such a town, to cultivate and stimulate a desire for a more advanced course of study.

THE SCHOOL BUILDINGS AND GROUNDS.

There are two buildings connected with the school, one in which the recitations are held and another in which the boys live with the Head-Master. These are five to ten minutes' walk distant from each other, and thus insure every student some exercise in the open air.

At the "Home" increased facilities for heating the building have been provided, the plumbing has received careful attention, the bath-rooms have been entirely refurnished, all the rooms repapered, and the building painted.

The school-house is heated by steam. A new system of sewerage has been put into the building.

The sanitary condition of the two buildings is all that can be desired.

Ample grounds are provided for out-door games.

PREPARATORY AND PRIMARY DEPARTMENTS.

The value of a continuous and systematic course of instruction cannot be over-estimated. Much valuable time of a boy's school life is lost by beginning his work under one teacher and according to a certain system of methods, and then changing for new surroundings and new methods. It is impossible to repair the injury thus done. A boy's early education should follow a carefully formed plan, under one intelligent direction.

The whole course of instruction is so framed as to form one connected system from the *primary work* to a *thorough preparation for College.* Boys are received as young as six years of age. Pupils of any age are received and placed in the grade for which they are prepared. Rooms have been fitted up and set apart for the special use of the younger boys.

Its work, however, is not restricted to candidates for College. It has courses of study adapted to fit young men for business life, or to give them a general education as good as the best academies offer. The friends of the College, who have sons or wards to educate, will do well to examine carefully into its merits.

For any further information address GEORGE F. JEWETT, Head-Master, Rutgers College Grammar School, New Brunswick, N. J.

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CATALOGUE

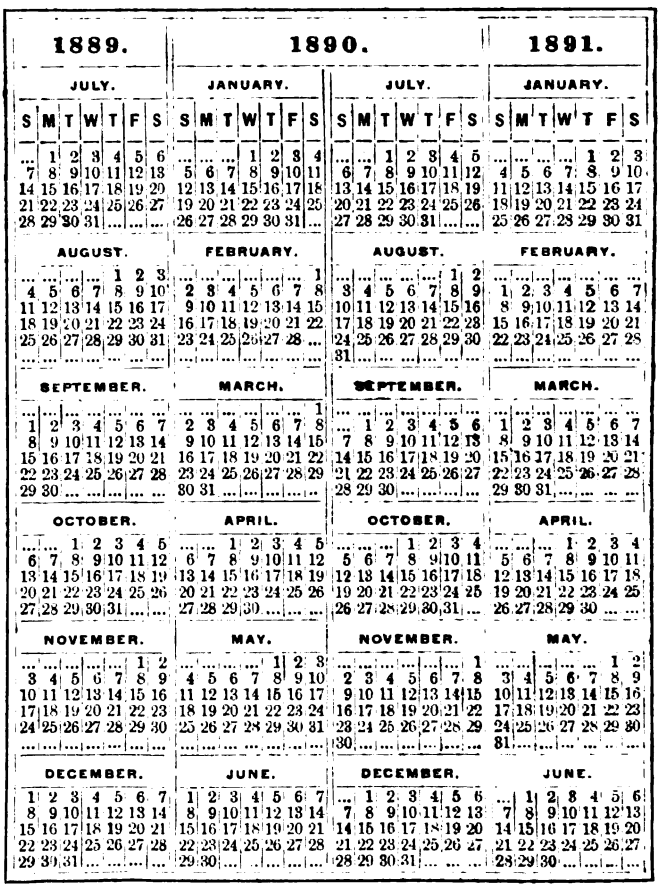
OF

RUTGERS COLLEGE,

AT

NEW BRUNSWICK, N. J.

1889-'90.



1889.

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1891.

JANUARY.

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JUNE.

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CATALOGUE

OF THE

OFFICERS AND STUDENTS

OF

RUTGERS COLLEGE

AT

NEW BRUNSWICK, N. J.

1889-90.

CHARTERED A. D. 1766.

TRENTON, N. J.:
THE JOHN L. MURPHY PUBLISHING CO., PRINTERS.
1889.

CALENDAR.

1889.

SEPTEMBER 17,	Tuesday: Examinations for admission.
SEPTEMBER 18,	Wednesday: First Term begins. Recitations.
OCTOBER 5,	Saturday: Sloan Entrance Prize Examinations.
OCTOBER 29,	Tuesday: Stated Meeting of the Board of Trustees, 2 P. M.
NOV. 27–DEC. 2,	Thanksgiving Recess.
DECEMBER 16-20,	Examinations. Friday: First Term ends.
DEC. 20–JAN. 6,	Christmas Vacation.

1890.

JANUARY 6,	Monday: Second Term begins. Recitations.
JANUARY 30,	Day of Prayer for Colleges.
FEBRUARY 22,	Washington's Birthday.
MARCH 4,	Tuesday: Stated Meeting of the Board of Trustees, 2 P. M.
MAR. 27–APR. 2,	Examinations. Wednesday: Second Term ends.
APRIL 2–10,	Spring Vacation.
APRIL 10,	Thursday: Third Term begins. Recitations.
MAY 19, 20,	Senior Final Examinations.
JUNE 9–13,	Examinations of Three Lower Classes.
JUNE 13,	Friday: Reading of Theses by Scientific Seniors.
JUNE 15,	Sunday: Baccalaureate Sermon.
JUNE 16, 17,	Monday, 10 A. M., and Tuesday: Examinations for admission.
JUNE 16,	Monday: Class-Day Exercises, 3 P. M.
JUNE 17,	Tuesday: Commencement Meeting of the Board of Trustees, 10 A. M. Meeting of the Alumni, 10 A. M. Exercises of the Literary Societies, 3:30 P. M. Junior Exhibition, 8 P. M.
JUNE 18,	Wednesday: 120th Annual Commencement, 10 A. M.
JUNE 18-SEPT. 16,	Long Vacation.
SEPTEMBER 16,	Tuesday: Examinations for admission, 10 A. M. Examinations for removal of June Conditions, 10 A. M. All conditioned students must be present.
SEPTEMBER 17,	Wednesday: First Term begins. Recitations.
OCTOBER 4,	Saturday: Sloan Entrance Prize Examinations.
OCTOBER 28,	Tuesday: Stated Meeting of the Board of Trustees, 2 P. M.
NOV. 26-DEC. 1,	Thanksgiving Recess.
DECEMBER 17–23,	Examinations. Tuesday: First Term ends.
DEC. 23-JAN. 7,	Christmas Vacation.

1891.

JANUARY 7,	Wednesday: Second Term begins. Recitations.

TRUSTEES.

1889-90.

EX-OFFICIO.

HIS EXCELLENCY ROBERT S. GREEN, ... ELIZABETH.
Governor of the State of New Jersey.

HON. MERCER BEASLEY, LL.D., ... TRENTON.
Chief Justice of the State of New Jersey.

HON. JOHN P. STOCKTON, ... TRENTON.
Attorney-General of the State of New Jersey.

BY ELECTION.

Names.	*Address.*	*Date of Election.*
MERRILL EDWARDS GATES, LL.D., L.H.D., *President of the College.*	New Brunswick,	March 7, 1882.
REV. T. E. VERMILYE, D.D., LL.D.,	New York City, 15 West 56th St.	July 24, 1849.
HON. JOHN HOPPER,	Paterson,	July 22, 1851.
MAURICE E. VIELE, ESQ.,	Albany, N. Y.,	July 27, 1853.
REV. DAVID D. DEMAREST, D.D.,	New Brunswick,	April 13, 1858.
HON. JOSEPH P. BRADLEY, LL.D.,	Washington, D. C.,	June 29, 1859.
HENRY L. JANEWAY, ESQ.,	New Brunswick,	April 8, 1862.
REV. TALBOT W. CHAMBERS, D.D., LL.D.,	New York City, 70 West 36th St.	June 17, 1868.
REV. JOACHIM ELMENDORF, D.D.,	New York, 61 East 123d St.	April 14, 1869.
REV. PAUL D. VAN CLEEF, D.D.,	Jersey City,	April 14, 1869.
SAMUEL SLOAN, ESQ.,	New York City, 26 Exchange Place.	June 20, 1871.
HON. GEORGE C. LUDLOW,	New Brunswick,	June 17, 1873.
HON. WILLIAM A. NEWELL,	Olympia, Wash.,	June 17, 1873.
REV. ISAAC S. HARTLEY, D.D.,	Utica, N. Y.,	June 17, 1873.
REV. WILLIAM ORMISTON, D.D.,	Passadena, Cal.,	June 20, 1876.
REV. JOHN GASTON, D.D.,	Passaic,	June 20, 1876.
HON. HENRY W. BOOKSTAVER, LL.D.,	New York City, 14 East 67th St.	June 20, 1876.

Names.	*Address.*	*Date of Election.*
Robert F. Ballantine, Esq.,	Newark,	June 20, 1876.
Rev. William Rankin Duryee, D.D.,	Jersey City,	March 5, 1878.
Rev. William J. R. Taylor, D.D.,	New York City, 88 Washington Square, West.	June 18, 1878.
Rev. Abraham R. Van Nest, D.D.,	New York City,	Oct. 29, 1878.
William Clark, Esq.,	Newark,	Oct. 29, 1878.
Hon. George H. Sharpe,	Kingston, N. Y.,	March 4, 1879.
David Bingham, Esq.,	East Orange,	March 7, 1882.
Henry R. Baldwin, M.D.,	New Brunswick,	June 17, 1884.
Frederick Frelinghuysen, Esq.,	Newark,	June 16, 1885.
Ernest J. Miller, Esq.,	Albany, N. Y.,	June 16, 1885.
Hon. Jonathan Dixon, LL.D.,	Jersey City,	June 22, 1886.
James Neilson, Esq.,	New Brunswick,	June 22, 1886.
Rev. Roderick Terry, D.D.,	New York City, 169 Madison Ave.	June 22, 1886.
Tunis G. Bergen, Ph.D.,	Brooklyn, N. Y., 127 Pierrepont St.	Oct. 25, 1887.
Rev. Edward B. Coe, D.D.,	New York, 42 West 52d St.	Oct. 25, 1887.
Elbert B. Monroe, Esq.,	Southport, Conn.,	Oct. 25, 1887.
Rev. John B. Drury, D.D.,	New Brunswick,	Oct. 25, 1887.
Rev. James Le Fevre,	Middlebush,	June 19, 1888.
Garrett E. Winants, Esq.,	Bergen Point,	March 5, 1889.

Rev. DAVID D. DEMAREST, D.D., ... New Brunswick.
Secretary of the Board.

*JOHN C. ELMENDORF, Esq., ... New Brunswick.
Treasurer of the Board.

FREDERICK FRELINGHUYSEN, Esq., . . Newark.
Acting Treasurer of the Board.

STATED MEETINGS OF THE BOARD.

Last Tuesday in October, at 2 o'clock P. M.
First Tuesday in March, at 2 o'clock P. M.
Tuesday before Commencement, at 10 o'clock A. M.

James Thomas, *Janitor.*

*Died July 18th, 1889.

FACULTY.

MERRILL EDWARDS GATES, PH.D., LL.D., L.H.D.,
PRESIDENT,

THEODORE FRELINGHUYSEN *Professor of Moral Philosophy.*
President's House, College Campus.

*GEORGE HAMMELL COOK, PH.D., LL.D.,
VICE-PRESIDENT,
Professor of Geology and Agriculture, and Director of the Experiment Station.
Bleecker Place.

REV. THEODORE SANDFORD DOOLITTLE, D.D.,
COLLEGIATE CHURCH *Professor of Rhetoric, Logic and Mental Philosophy.*
Seminary Place.

REV. JACOB COOPER, D.D., D.C.L.,
Professor of the Greek Language and Literature.
108 George Street.

REV. CARL MEYER, D.D.,
Professor of Modern Languages.
245 Easton Avenue.

FRANCIS CUYLER VAN DYCK, PH.D.,
Professor of Physics and Experimental Mechanics.
84 College Avenue.

EDWARD A. BOWSER, C.E., LL.D.,
Professor of Mathematics and Engineering.
Queen's College Building.

GEORGE BENJAMIN MERRIMAN, A.M.,
Professor of Mathematics and Astronomy.
282 Hamilton Street.

PETER TOWNSEND AUSTEN, PH.D., F.C.S.,
Professor of General and Applied Chemistry.
22 Union Street.

REV. CHARLES EDWARD HART, D.D.,
Professor of the English Language and Literature.
33 Livingston Avenue.

*Died September 22d, 1889.

AUSTIN SCOTT, PH.D.,
VOORHEES *Professor of History, Political Economy, and Constitutional Law.*
24 Livingston Avenue.

FRANCIS AUGUSTUS WILBER, M.S.,
Adjunct Professor of Analytical Chemistry.
Bishop Place.

LOUIS BEVIER, PH.D.,
Adjunct Professor of Modern Languages.
145 College Avenue.

EDGAR SOLOMON SHUMWAY, A.M.,
Professor of the Latin Language and Literature.
Queen's College Building.

ALFRED ALEXANDER TITSWORTH, M.S., C.E.,
Professor of Graphics and Mathematics.
57 Livingston Avenue.

HORACE BUSHNELL PATTON, PH.D.,
Adjunct Professor of Chemical Geology and Mineralogy, and their Application in Agriculture.
(*Experiment Station.*)
38 College Avenue.

JULIUS NELSON, PH.D.,
Professor of Biology, and its Applications in Developing Food-Products.
(*Experiment Station.*)
Benner Street, Highland Park.

SAMUEL EWING SMILEY, 2D LIEUTENANT, 8TH U. S. INFANTRY,
Professor of Military Science and Tactics.
Geological Hall.

BYRON DAVID HALSTED, SC.D.,
Professor of Botany and Horticulture.
(*Experiment Station.*)
342 George Street.

HARRY BELKNAP BOICE, M.D.,
Instructor in Gymnastics.
Palmer House.

JOHN BERNHARD SMITH,
Professor of Entomology.
(Experiment Station.)
81 Easton Avenue.

MARTIN NEVIUS WYCKOFF, A.M.,
Adjunct Professor of Physics and Laboratory Assistant.
202 Redmond Street.

JOHN DEWITT, JR., A.B.,
Instructor in Mathematics and Assistant in English Composition.
Seminary Place.

JOHN C. VAN DYKE, L.H.D.,
Lecturer upon Modern Art for 1889–90.
Sage Library.

IRVING STRONG UPSON, A.M.,
Librarian.
118 Bayard Street.

The names of the Faculty after that of the President are arranged according to seniority of appointment.

CATALOGUE OF STUDENTS

FOR THE YEAR BEGINNING SEPTEMBER 18, 1889.

GRADUATE STUDENT.

Name.	*College.*	*Residence.*	*Rooms.*
SAM CORLE SCHENCK, A.B., *Electricity.*	Rutgers,	Lambertville,	120 New St.

SENIOR CLASS.

Classical Section.

Names.	*Residences.*	*Rooms.*
HOWARD WILBER ENNIS,	Albany, N. Y.,	12 Hertzog Hall.
GARRETT JACOB FOLMSBEE,	South Schodack, N. Y.,	12 Hertzog Hall.
GEORGE WASHINGTON GLASIER,	Warsaw, N. Y.,	215 New St.
GERARD HALLOCK,	Linden,	Zeta Psi House.
HORACE STERLING HAWES,	Richmond, Va.,	Delta Phi House.
IRVING HOAGLAND,	Franklin Park,	354 George St.
ARTHUR FREDERICK MABON,	New Brunswick,	Seminary Place.
WARREN ACKERMAN MAYOU,	Marysville, Kansas,	64 College Ave.
STEPHEN WARD RIGHTER,	Boonton,	Chi Psi Lodge.
WARREN REDCLIFFE SCHENCK,	New Brunswick,	Redcliffe.
HENRY JOHNSTON SCUDDER,	Poughkeepsie, N. Y.,	Delta Phi House.
ARTHUR SPAULDING,	Newark,	Chi Psi Lodge.
ELIAS BROWN VAN ARSDALE,	Paterson,	21 Hertzog Hall.
JOHN S. VAN ORDEN,	Spring Valley, N. Y.,	37 Hertzog Hall.
ALEXANDER VAN WAGONER,	Paterson,	381 George St.
RALPH SPENCER VOORHEES,	Bedminster,	46 Union St.
WILLIAM DAVIS WARD,	Closter,	43 Hertzog Hall.
ERASTMUS AMES WHITENACK,	Bedminster.	

Scientific Section.

Names.	*Residences.*	*Rooms.*
CHARLES DIVINE,	Elizabeth,	Elizabeth.
ALLEN PRICE FORD,	Crosswicks,	90 Albany St.
HOWARD GOFF,	East Creek,	27 Albany St.
SAMUEL HOBART LOCKETT, JR.,	Jersey City,	120 Bayard St.
MALCOLM CAMERON LUDLAM,	South Dennis,	Chi Psi Lodge.
EDWARD THORN MIDDLETON,	Crosswicks,	83 New St.
JOHN ALFRED POTTER,	Rahway,	Rahway.
LOUIS WILLIAM STOTESBURY,	Matteawan, N. Y.,	120 Bayard St.

JUNIOR CLASS.

Classical Section.

Names.	*Residences.*	*Rooms.*
James Bishop, Jr.,	Trenton,	Delta Phi House.
Edward Otis Chickering,	Catskill, N. Y.,	166 New St.
Harry Thornton Dayton,	Brooklyn, N. Y.,	Chi Psi Lodge.
Richard Jones Geisinger,	Bridgeton,	19 Plum St.
Jasper Samuel Hogan,	Guilderland Cent., N.Y.,	53 Hertzog Hall.
Robert James Hogan,	Guilderland Cent., N.Y.,	53 Hertzog Hall.
Abram Whittaker Hopper,	Spring Valley, N. Y.,	47 Hertzog Hall.
Charles Wesley Hulst,	Greenwich, N. Y.,	120 New St.
Charles Seward Johnson,	Brier Hill, N. Y.,	154 New St.
Harry Lockwood,	Albany, N. Y.,	94 Bayard St.
Samuel Clifton Mabon,	New Brunswick,	Seminary Place.
William Forder Mets,	Somerville,	144 Welton St.
Frank Reid Miller,	Sacramento, Cal.,	117 Bayard St.
William Pohlman Pool,	Somerville,	114 Bayard St.
John Howard Raven,	Brooklyn, N. Y.,	Zeta Psi House.
Patrick Augustine Ray,	Greenwich, N. Y.,	90 Albany St.
Howard Augustus Reynolds,	New Brunswick,	179 George St.
Herbert Bennett Roberts,	Kingston, N. Y.,	37 Hertzog Hall.
Walter Cooley Sampson,	New Brunswick,	Chi Psi Lodge.
Edward Van Vechten Searle,	Hurley, N. Y.,	52 Hertzog Hall.
Clifford Henry Strang,	Montrose-on-Hudson, N.Y.,	137 Welton St.
Selah Woodhull Strong,	New Brunswick,	86 Carroll Place.
William Van Deursen Strong,	New Brunswick,	86 Carroll Place.
Gillett Wynkoop,	Catskill, N. Y.,	95 Bayard St.

Scientific Section.

Names.	*Residences.*	*Rooms.*
JOHN CHARLES AYDELOTT,	Pekin, Ill.,	64 College Ave.
PHILANDER BETTS, 3d,	Hackensack,	Hackensack.
ELIHU CALVIN BRYAN,	Shekomeko, N. Y.,	183 New St.
JOSEPH COMPTON CASTNER,	New Brunswick,	130 Church St.
PAULL JEWILL CHALLEN,	New Brunswick,	136 Hamilton St.
ROBERT JOSEPH DOUGHERTY,	New Brunswick,	88 Carroll Place.
HARRY WILLIAMS FULLER,	Bayonne,	Bayonne.
THOMAS MANDEVILLE HOPPER,	Paterson	381 George St.
SAMUEL ARTHUR JOHNSON,	Morristown,	27 Albany St.
GEORGE ANDREWS MITCHELL,	Vineland,	281 Hamilton St.
MARCUS CALDWELL SEARS,	New Brunswick,	College Farm.
FREDERICK SEYMOUR SMITH,	Morristown,	183 New St.
HENRY HEWGILL STEVENS,	New Brunswick,	Clifton Ave.
JAMES COFFYN STOUT,	New Brunswick,	56 Bayard St.
ISAAC MABBETT SUTTON,	Poughkeepsie, N. Y.,	64 College Ave.
ARTHUR BENJAMIN TOTTEN,	Middlebush,	Middlebush.
CORNELIUS D. VREELAND, JR.,	Little Falls,	95 Bayard St.
EDWARD LASKY WELLING,	Warwick, N. Y.,	Delta Phi House.

SOPHOMORE CLASS.

Classical Section.

Names.	*Residences.*	*Rooms.*
WINFRED RUGAN ACKERT,	Poughkeepsie, N. Y.,	120 New St.
OSMYN BAKER,	Millington,	Chi Psi Lodge.
ALBERT DORRANCE BALDWIN,	Newark,	Chi Psi Lodge.
JOSEPH FREDERIC BERG,	Brooklyn, N. Y.,	25 Hertzog Hall.
CLARENCE HORNBECK BONNELL,	Port Jervis, N. Y.,	64 College Ave.
PHILIP MILLEDOLER BRETT,	Jersey City,	Delta Phi House.
HENRY ROBINSON BRISTOL,	Warsaw, N. Y.,	215 New St.
JAMES DICKSON CARR,	New York City,	28 French St.
DRURY WALLS COOPER,	New Brunswick,	108 George St.
CHARLES EDWARD CORWIN,	New Brunswick,	Hertzog Hall.
HARRY ROSE DANNER,	Paterson,	57 Livingston Ave.
HARRY KIMBALL DAVIS,	Amsterdam, N. Y.,	166 New St.
MILTON DEMAREST,	Oradell,	45 Hertzog Hall.
CHALMERS PETER DYKE,	Grand Rapids, Mich.,	120 New St.
ROBERT EMMET FARLEY,	Fort Plain, N. Y.,	Delta Phi House.
GILBERT TERBELL GALE,	Bergen Point,	Chi Psi Lodge.
AMOS HOPPOCK HAINES,	Sergeantsville,	Somerset St.
HOWARD CROSBY HASBROUCK,	New Brunswick,	Highland Park.
JESSE CHARLES HAZZARD,	Kingston, N. Y.,	Chi Psi Lodge.
CLARENCE WINANTS HILLYER,	New York City,	Chi Psi Lodge.
GEORGE DE WITT KELSO,	Newburgh, N. Y.,	Queen's College Build'g.
ISAAC WILLIAM LOTT,	Flatlands, L. I.,	16 Hertzog Hall.
HENRY MCKNIGHT MOORE,	Jersey City Heights,	Jersey City.
MITSUYE OI,	Tokio, Japan,	33 Hertzog Hall.
HENRY WEMPLE PAWLING,	Hagaman's Mills, N. Y.,	120 New St.
GEORGE ROBERT PERCY,	Jersey City,	350 George St.
WALTER TRACY SCUDDER,	Tindivanam, India,	Delta Phi House.
WILLIAM CARMAN SHERWOOD,	Jersey City,	350 George St.
JAMES BISHOP THOMAS,	New Brunswick,	350 George St.
JAMES WESTFALL THOMPSON,	New Brunswick,	137 Somerset St.
FRANK VOORHEES,	Englewood,	104 French St.
ROBERT SUMNER WINN,	Shanghai, China,	137 Somerset St.

Scientific Section.

Names.	*Residences.*	*Rooms.*
Andrew Hall Berry,	Elizabeth,	105 Albany St.
Eugene Betts,	Hackensack,	90 Paterson St.
Ellis Bishop,	Trenton,	Delta Phi House.
Holmes Earle Bruere,	Cream Ridge,	27 Albany St.
George Colfax Bullock,	Jacobstown,	Chi Psi Lodge.
William Jacob Cooper,	New Brunswick,	108 George St.
John Michael Daly,	New Brunswick,	68 Guilden St.
Peter Conover Field,	New Brunswick,	381 George St.
Frederick Force Fisher,	Newark,	Zeta Psi House.
Richard Swann Lull,	Trenton,	Chi Psi Lodge.
Harry Augustus Mather,	Morristown,	363 George St.
James Morris McCloskey,	New Brunswick,	437 George St.
J. Livingston Rutgers Morgan,	New Brunswick,	47 Bayard St.
Austin Flint Morris,	Jersey City,	420 George St.
William Thomas Morrison,	New Brunswick,	21 Schuyler St.
Clifford Stockton Shaw,	Hyde Park, N. Y.,	104 Bayard St.
William Hulings Stafford,	Haddonfield,	381 George St.
Perry Elias Taylor,	Schoharie, N. Y.,	Delta Phi House.
Frank Robertson Van Horn,	Johnsonsburg,	104 French St.
William Vaughan,	Orange,	420 George St.
Henry Edwin Waters,	Rahway,	Rahway.
Albert Batchelder Wells,	Southbridge, Mass.,	Zeta Psi House.
Daniel Gregory Wright,	Elizabeth,	105 Albany St.
George Hampton Wyckoff,	New Brunswick,	243 George St.

FRESHMAN CLASS.

Classical Section.

Names.	*Residences.*	*Rooms.*
ARTHUR NORWOOD BINGHAM,	East Orange,	Seminary Place.
WALTER CARRINGTON CABELL,	Jersey City,	350 George St.
HAROLD COBURN COOK,	New Brunswick,	Grammar School Home.
FRANKLIN RICHMOND CUSHMAN,	Glocester, Rhode Island,	Franklin Park.
HENRY CHARLES CUSSLER,	Catskill, N. Y.,	166 New St.
SAMUEL SATTERTHWAITE DE COU,	Trenton Junction,	155 Bayard St.
ABRAM DURYEE,	East Millstone,	Hertzog Hall.
FREDERICK NELSON JACOBUS,	Newark,	Newark.
HENRY HARRINGTON JANEWAY,	New Brunswick,	192 Livingston Ave.
FRANK MALVEN,	Port Jervis, N. Y.,	34 College Ave.
ROBERT DODGE MERRILL,	New Brunswick,	72 Easton Ave.
ISAAC MESSLER,	White House,	91 Bayard St.
LOUIS HOWELL METTLER,	East Millstone,	East Millstone.
PAUL QUATTLANDER OLIVER,	Bound Brook,	172 College Ave.
FRANCIS BAIRD SANFORD,	Warwick, N. Y.,	137 Welton St.
ALBERT HENRY SCHLIEDER,	Canarsie, N. Y.,	114 Bayard St.
AUGUSTUS HOBART SMOCK,	Glen Head, L. I.,	25 Schuyler St.
HOBART EARL STUDLEY,	Catskill Station, N.Y.,	144 Welton St.
CHARLES EDWARD TINDELL,	New Brunswick,	214 Townsend St.
ISAAC J. VAN HEE,	Pultneyville, N. Y.,	Hertzog Hall.
FRANK M. VAN ORDEN,	Spring Valley, N. Y.,	64 College Ave.
ELLIS ROBERT WOODRUFF,	New Brunswick,	91 Bayard St.

Scientific Section.

Names.	*Residences.*	*Rooms.*
Reginald Briant Allen,	Medford,	147 Bayard St.
Charles Storr Chamberlain,	Madanapalle, India,	26 Hertzog Hall.
Horace Munson Decker,	Newark,	Newark.
Mauritz Fred. H. de Haas,	Brooklyn, N. Y.,	381 George St.
George Ray Deshler,	New Brunswick,	116 Hamilton St.
Edwin Alexander Francis,	Westfield,	Westfield.
Philip Bevier Hasbrouck, Jr.,	Libertyville, N. Y.,	Chi Psi Lodge.
Joseph Allen Headley,	Union,	90 Paterson St.
John Royal Hemion,	Passaic,	137 Welton St.
James Wallace Higgins,	Roselle,	Roselle.
Henry Jiron Kendall,	Isleta, N. Mexico,	Grammar School Home.
Charles Edgar Lovejoy,	Elizabeth,	Elizabeth.
William Gelon McKnight,	New Brunswick,	58 Bayard St.
George Washington Mendenhall,	Bordentown,	Bordentown.
George Augustus Oakes,	Bloomfield,	172 College Ave.
Samuel Lee Poole,	Caldwell,	Zeta Psi House.
Frank Wilbur Remsen,	Blackwell's Mills,	Hertzog Hall.
Ezra Fred Scattergood,	Burlington,	25 Codwise Ave.
George Brown Schenck,	Neshanic,	144 Welton St.
Harry Noe Selvage,	Bergen Point,	Chi Psi Lodge.
Vreeland Tompkins,	Jersey City,	25 Schuyler St.
David Higgins Townley,	Elizabeth,	Zeta Psi House.
Henry Francis Twitchell,	Newark,	Chi Psi Lodge.
Charles Henry Earl Utter,	Newark,	Newark.
Garrett Scott Voorhees,	Bedminster,	154 New St.
Herbert Metlar Waldron,	New Brunswick,	417 George St.
Howard Van Deventer Waldron,	New Brunswick,	417 George St.
Benjamin Franklin Ward,	Hainesburg,	21 Hardenbergh St.

SPECIAL STUDENTS.

NOT CANDIDATES FOR A DEGREE.

Names.	*Residences.*	*Rooms.*
RAYMOND VOORHIS COLE,	Troy, N. Y.,	13 Hardenbergh St.
GARRETT MILTON CONOVER,	Clinton,	31 Hertzog Hall.
HERBERT EDWIN DE FREEST,	Troy, N. Y.,	13 Hardenbergh St.
HOWARD ELTING,	Gardiner, N. Y.,	Delta Phi House.
HARRY DUNCAN GARRETSON,	Franklin,	381 George St.
WILLIAM CHARLES HUBBARD,	Plainfield,	381 George St.
JOHN ELLIS IRICK,	Vincentown,	83 New St.
ALEXANDER LIVINGSTON KEAN,	Elizabeth,	Elizabeth.
WARREN MCCLELLAN OSBORN,	Point Pleasant,	27 Albany St.
ISAAC SPERLING,	Middlebush,	41 Hertzog Hall.
WILLIAM WARD STEPHENS,	Newark,	Zeta Psi House.
CHARLES WILLIAM VAN ZEE,	Bayonne,	43 Hertzog Hall.
GEORGE HAMPTON WYCKOFF,	New Brunswick,	243 George St.

SUMMARY.

Graduate	1
Seniors	26
Juniors	42
Sophomores	55
Freshmen	50
Specials	13
Total, 1889-90	187

CLASSICAL DEPARTMENT.

1. ADMISSION.

Examinations for admission to the College will be held on Monday and Tuesday of Commencement week, June 16th and 17th, 1890, beginning at 10 o'clock Monday morning. Applicants for admission may also be examined on Tuesday, September 16th, at 10 A. M. Students who can do so are advised to be present for examination in June.

From certain preparatory schools of approved standing, students are admitted (conditionally) upon the Principal's certificate.

Examinations for admission are both written and oral.

Candidates for admission to advanced classes must sustain a satisfactory examination upon the subjects previously studied by the class which they propose to enter, as well as upon those required for admission into the Freshman Class. Under this regulation, students are admitted at any time during the collegiate year.

Students who desire to pursue selected branches of study may do so, if properly prepared to pursue them with the regular classes. Special provision is made for such students in the Scientific Department. All such students are required to take examinations with the class with which they study, and sufficient work must be taken to occupy fully the student's time.

It is expected that students who present themselves will be prepared, by careful study and by *reviews* of their work, to pass successfully a thorough examination on the subjects which are required.

Only such students are admitted with conditions as are, in the opinion of the examiners, so nearly prepared as to be able to make up all deficiencies during the first two months of the term, meanwhile maintaining a good standing in their class.

Conditioned students will have an opportunity given them to remove their entrance conditions as early as possible in the first term. It is expected that *all entrance conditions* will be made up before the Thanksgiving recess.

SLOAN PRIZES FOR THE BEST ENTRANCE EXAMINATIONS, CLASSICAL COURSE.

A FIRST PRIZE OF ONE HUNDRED DOLLARS in cash and a SCHOLARSHIP YIELDING $300, to apply on term bills; and a SECOND PRIZE OF FIFTY DOLLARS in cash and a SCHOLARSHIP YIELDING $300, to apply on term bills, will be awarded to the students who shall be adjudged by the examiners to have passed the best examination among the applicants for admission to the Freshman Class, in 1890. The names of the successful candidates, and of the schools at which they prepared for College, will be printed in the annual catalogue. The cash prizes will be awarded, one-half at matriculation and one-half at the end of the second term of the Freshman year. The scholarship funds will be applied to cancel term bills for tuition during the course, and will be forfeited if the student's general average on the work of the year falls below 80 on a scale of 100.

These two cash prizes have been given for six years by Hon. SAMUEL SLOAN, of New York, a member of the Board of Trustees.

The FIRST PRIZE, September, 1888, was awarded to CHARLES EDWARD CORWIN, prepared at the Rutgers College Grammar School, New Brunswick; the SECOND PRIZE, to JAMES BISHOP THOMAS, prepared at the same school, New Brunswick, E. T. TOMLINSON, Ph.D., Head-Master.

The FIRST PRIZE, September, 1889, was awarded to FRANKLIN RICHMOND CUSHMAN, prepared by private instructors; the SECOND PRIZE, to HOBART EARL STUDLEY, prepared at the Rutgers College Grammar School, New Brunswick, GEORGE F. JEWETT, A.B., Head-Master.

REQUIREMENTS FOR ADMISSION.

The following, or a full equivalent, are the requirements for admission to the Freshman Class:

1. LATIN.

Allen and Greenough's, or Gildersleeve's, or Harkness's Latin Grammar, including the principles of Prosody.

Jones's Latin Composition, or the first 44 sections of Arnold's Latin Prose Composition, or an equivalent.

Cæsar, Four Books of the Gallic War [or Books I. and II. and Sallust's Catiline].

Vergil, Æneid, 6 Books.

Seven Orations of Cicero, of which it is recommended that the orations for the Poet Archias, on the Manilian Law, and for King Deiotarus, shall be three.

Questions on the subject-matter, the history, the geography and the mythology involved in the Latin read. *Students will be tested in reading "at sight" easy Latin (e. g., Cæsar, Sallust, Cicero, Quintus Curtius); and a map of Italy, to be drawn from memory, at the examination, will be required, together with familiarity with the classical geography of Gaul and Spain; and Smith's Smaller History of Rome (or an equivalent history of this period) to the time of the Empire.*

In preparing in Latin, the student should give close attention to the regular prose constructions of the language, and especially, in reading Cæsar or Sallust, to the forms of "indirect discourse." He should be thoroughly drilled in the use and the force of the moods and tenses, the consecution of tenses, the gerundive construction, etc., and should be taught to *analyze the sentence into subject and predicate, and the words, phrases or clauses which modify the subject and the predicate.*

The student should have as much exercise in writing Latin as possible. From the first, exercises in rendering English into Latin, both *orally* and in writing, are earnestly recommended.

The system of pronunciation followed is the Roman. For correctness of pronunciation, the rules of quantity are necessary to those who have not been thoroughly accustomed to the correct sound of the Latin words.

2. GREEK.

Hadley's or Goodwin's Greek Grammar, including the principles of Prosody, and of *Accentuation.*

Xenophon's Anabasis—three books, or an equal amount of Goodwin's Greek Reader.

Arnold's First Greek Book, or Whiton's First Greek Book, entire; and Jones's Exercises in Greek Composition or Sidgwick's First Greek Writer, Introduction and 60 exercises.

Homer—The Iliad, three books (omitting the catalogue of the ships).

Questions on the subject-matter, etc., as above.

Greek History will be required, Smith's Smaller History of Greece, or an equivalent; students will be tested at the entrance examinations in reading at sight easy Greek prose; and a map of Greece, with a good knowledge of the Geography of the Greek Islands and of Asia Minor, will be required.

The applicant must be thoroughly familiar with the leading principles of the whole Grammar, including accent, quantity and prosody.

In pronunciation, the accent must be followed in prose; but in poetry, regard will be had only to quantity.

Work done in reading other authors than those named in the requirements will be accepted, provided the pupil can pass upon a *full* equivalent.

3. MATHEMATICS.

Arithmetic complete, including the Metric System.

Algebra through Quadratic Equations, including Radicals; or the first 15 chapters of Bowser's College Algebra.

Plane Geometry—four books of Wells's, or an equivalent, *including the Problems and Exercises.*

Careful attention should be given to the *exercises* in Geometry, as they greatly aid in acquiring readiness in geometrical reasoning.

Attention is especially called to the Metric System of Weights and Measures, a practical knowledge of which is indispensable, since it is used in the classroom; and to the *essential importance of a thorough preparation in the elements of Algebra*, on which subsequent success in Mathematics so much depends. The mistake is often made of passing too hurriedly over the first few chapters of Algebra. The whole book will be more quickly and surely mastered if the first part be studied slowly and thoroughly, with frequent reviews.

In preparing in Mathematics the student should acquire a proficiency and readiness in the application of the principles; and to that end the careful solution of numerous and varied examples is earnestly recommended. It is also desirable to cultivate habits of neatness and order in the presentation of work on the blackboard or on paper.

4. THE ENGLISH BRANCHES.

Geography.

English Grammar.

Spelling.

History of the United States (Johnston's History of the United States).

Candidates for admission are examined in the History of the United States, with special reference to the colonization of the several States, the forms of government which existed previous to the war for independence, the causes and principal events of that war, the period of the Confederation, the establishment of the Federal Constitution, with the general history subsequent to that event.

Students often lack thorough or recent preparation in this subject. A more accurate knowledge of American History has become necessary as preliminary to the systematic instruction now given on the duties and relations of American citizenship.

A short English Essay is also required, to be written at the examination, on some theme drawn from books announced in advance; the essay to be correct in spelling, punctuation, division into paragraphs, grammar and expression. In June and September, 1890, the themes will be drawn from these books, which all students who apply for admission then should have read carefully: Kingsley's *Westward Ho!*; Shakespeare's *Macbeth;* Thackeray's *Henry Esmond;* Longfellow's *Miles Standish.*

In 1891, students should be familiar with Tennyson's *Enoch Arden;* Shakespeare's *Tempest;* Goldsmith's *Vicar of Wakefield;* Wordsworth's *Happy Warrior.*

2. COURSE OF INSTRUCTION.

The Course of Instruction occupies four years, with three terms in each year.

The following is a scheme of the studies of the course. While it is subject to change in details, it furnishes an exhibit of the amount of work required of students during the four years, and indicates to candidates for advanced standing the equivalents which will be accepted from them:

FRESHMAN CLASS.

Exercises during each term of the year in Composition, Declamation and Ex Tempore Speaking. Bible-Class, Sabbath Morning.

FIRST TERM, THIRTEEN WEEKS.

1. LATIN (4 hours a week).—Cicero, De Amicitia; Oral and Written Composition; Shumway's Latin Synonymes.
2. GREEK (4 hours a week).—Lucian's Timon; Sidgwick's Greek Prose Composition.
3. MATHEMATICS (4 hours a week).—Wells's Geometry, from Book V.
4. RHETORIC (2 hours a week).—Kellogg; Lectures; Essays.
5. BIOLOGY (2 hours a week).—Comparative Anatomy; Lectures; Physiology, Martin.

SECOND TERM, THIRTEEN WEEKS.

1. LATIN (4 hours a week).—Livy; Composition.
2. GREEK (4 hours a week).—Demosthenes's Olynthiac Orations, 2d and 3d, and one Philippic; Sidgwick's Greek Prose Composition, continued.
3. MATHEMATICS (4 hours a week).—Wells's Geometry completed; Algebra, Bowser's.
4. ENGLISH LITERATURE (2 hours a week).—History of the English language, Meiklejohn; Study of Words, Trench.
5. BIOLOGY (2 hours a week).—Comparative Anatomy; Lectures; Physiology, Martin.
6. ELOCUTION.—Lectures and Declamations.

THIRD TERM, TEN WEEKS.

1. LATIN (4 hours a week).—Horace; Mythology and Antiquities.
2. GREEK (4 hours a week).—Isocrates's Panegyric, Ed. Felton; Wilkins's Manual of Greek Prose.
3. MATHEMATICS (4 hours a week).—Bowser's Algebra completed.
4. BOTANY (2 hours a week).—Gray.
5. ENGLISH LITERATURE (2 hours a week).—An English Author.
6. ENGLISH COMPOSITION.—Exercises.

SOPHOMORE CLASS.

Exercises throughout the year in Composition, Declamation and Ex Tempore Speaking. Bible-Class, Sabbath morning.

FIRST TERM.

1. LATIN (4 hours a week).—Cicero, De Natura Deorum, Book II.; Pliny's Letters; Latin Composition.
2. GREEK (4 hours a week).—Sophocles' Œdipus Rex; Wilkins's Manual of Greek Prose Composition.
3. INORGANIC CHEMISTRY (3 hours a week).—Lectures, with Experiments, Richter; Austen's Lecture-Notes.
4. MATHEMATICS (5 hours a week).—Wells's Essentials of Trigonometry, Plane and Spherical, and Peirce's Four-Figure Tables.

SECOND TERM.

1. LATIN (3 hours a week).—Tacitus, De Oratoribus and Historiae; Composition.
2. GREEK (3 hours a week).—Thucydides, one book; Wilkins's Manual of Greek Prose Composition.
3. MATHEMATICS (3 hours a week).—Bowser's Analytic Geometry.
4. HISTORY (4 hours a week).—Fisher's Outlines, with Essays by the Class.
5. INORGANIC CHEMISTRY (3 hours a week).—Lectures, with experiments, Richter; Austen's Lecture Notes.

THIRD TERM.

1. LATIN (4 hours a week).—Terence or Plautus; History of Latin Literature.
2. GREEK (4 hours a week).—Aristophanes' Birds, Felton's Ed.; Wilkins's Manual of Greek Prose Composition completed.
3. MATHEMATICS (3 hours a week).—Bowser's Analytic Geometry.
4. HISTORY (2 hours a week).
5. INORGANIC CHEMISTRY (3 hours a week).—Lectures, with Experiments, Richter; Austen's Lecture-Notes.

JUNIOR CLASS.

Exercises throughout the year in Composition and Original Declamation.
Bible-Class, Sabbath morning.

FIRST TERM—PRESCRIBED STUDIES.

1. GREEK (3 hours a week).—Plato's Phædo, Wagner's Ed.; Buckhols Anthology, Bändchen II.
2. MENTAL PHILOSOPHY (4 hours a week).—Porter's Elements of Intellectual Philosophy, and Lectures; Essays on Metaphysical Subjects.
3. PHYSICS (2 hours a week).—Deschanel; Lectures, with Experiments.
4. GERMAN (3 hours a week).—Whitney's Brief German Grammar.
5. HISTORY (2 hours a week).—The English Constitution.

FIRST TERM—ELECTIVE STUDIES.

At least one of which is to be pursued; the course in Mathematics and that in Chemistry, if chosen, hold throughout the year; the other electives are arranged with a course for each term:

1. MATHEMATICS.—Differential and Integral Calculus, Bowser.
2. CHEMISTRY.—Experimental Chemistry, Remsen; Laboratory Practice.
3. ENGLISH.—Sweet's Anglo-Saxon Primer; Chaucer.
4. LATIN.—Juristic; Select Titles from the Corpus Juris; Morey's Outlines of Roman Law, Part II.
5. FRENCH.
6. GENERAL BIOLOGY.—Lectures; Laboratory Practice.

SECOND TERM—PRESCRIBED STUDIES.

1. LATIN (3 hours a week).—The Institutes of Justinian, or Gaius; The History of Roman Law—Morey's Outlines.
2. MENTAL PHILOSOPHY AND LOGIC (3 hours a week).—Porter's Elements of Intellectual Philosophy, and Lectures; Essays on Metaphysical Subjects; LOGIC—Jevons-Hill's Logic.
3. PHYSICS (2 hours a week).—Deschanel; Lectures, with Experiments.
4. GERMAN (3 hours a week).—German Reader.
5. ASTRONOMY (3 hours a week).—Young.

SECOND TERM—ELECTIVE STUDIES.

At least one of which is to be pursued:

1. MATHEMATICS.—Calculus, Bowser.
2. CHEMISTRY.—Blowpipe Analysis, Nason; Lectures; Laboratory Practice.
3. ENGLISH.—Poetics.
4. GREEK.—Aristotle's Ethics, Books I. and II.
5. FRENCH.
6. GENERAL BIOLOGY.—Lectures; Laboratory Practice.

THIRD TERM—PRESCRIBED STUDIES.

1. HISTORY OF CIVILIZATION (4 hours a week).—Guizot; Essays.
2. GERMAN (4 hours a week).—Classic Authors, and a weekly Lecture on German Literature.
3. PHYSICS (2 hours a week).—Deschanel; Lectures, with Experiments.
4. ENGLISH LITERATURE (2 hours a week).—English Authors.

THIRD TERM—ELECTIVE STUDIES.

At least two of which are to be pursued:

1. GREEK.—Buckholz Anthology, Part II.
2. LATIN.—Selections from Catullus, Tibullus, Propertius.
3. MATHEMATICS.—Calculus, Bowser.
4. CHEMISTRY.—Qualitative Analysis, Crafts; Laboratory Practice.
5. ENGLISH.—Milton, or Shakespeare.
6. FRENCH.
7. METAPHYSICS.

SENIOR CLASS.

Exercises throughout the year in Composition and Original Declamation.
Bible-Class, Sabbath morning.

FIRST TERM—PRESCRIBED STUDIES.

1. MORAL PHILOSOPHY (4 hours a week).—Calderwood's Hand-book; Lectures; Essays.
2. POLITICAL ECONOMY (4 hours a week).—Walker and Perry; Lectures.
3. PHYSICS (2 hours a week).—Deschanel; Lectures.
4. LECTURES (1 hour a week).—On THE SCIENCE AND ART OF TEACHING, and on SOCIAL SCIENCE, HISTORY, ARCHÆOLOGY, etc.

FIRST TERM—ELECTIVE STUDIES.

At least two of which are to be pursued; courses in Senior Elective work are chosen at the beginning of the first term and pursued for the entire year:

1. GREEK.—Selections from Aristotle's Organon with Porphyry's Isagoge.
2. ASTRONOMY.—Loomis's Practical Astronomy; Observatory Work; Lectures.
3. PHYSICS.—Experimental Mechanics; Deschanel, Part I.
4. MODERN LANGUAGES.—German; French.
5. CHEMISTRY.—Qualitative Analysis, Crafts; Laboratory Practice.
6. LATIN.—Vitruvius; Pliny the Elder; Classical Archæology.
7. HISTORY.—Comparative Study of the growth of Modern Constitutions.
8. HEBREW (extra hours).

SECOND TERM—PRESCRIBED STUDIES.

1. POLITICAL ETHICS; THE DUTIES OF CITIZENSHIP (4 hours a week).—Lieber and Woolsey, Lectures, Essays.
2. CONSTITUTION OF THE UNITED STATES (5 hours a week).—Cooley; Essays.
3. GEOLOGY (2 hours a week).—Geikie.

SECOND TERM—ELECTIVE STUDIES.

At least two of which are to be pursued:

1. LATIN.—Vitruvius; Pliny the Elder; Classical Archæology.
2. ASTRONOMY.—Loomis's Practical Astronomy; Observatory Work; Lectures.
3. MODERN LANGUAGES.—German; French.
4. CHEMISTRY.—Quantitative Analysis, Classen; Laboratory Practice.
5. PHYSICS.—Experimental Mechanics; Deschanel, Parts I. and II.
6. GREEK.—Plato's Republic.
7. HISTORY.—For the present Senior Class: American Constitutional Development.
8. MINERALOGY.—Crosby; Lectures; Class Work Practice.
9. HEBREW (extra hours).

THIRD TERM—PRESCRIBED STUDIES.

1. MORAL PHILOSOPHY (4 hours a week).—The Evidences of Christianity; Lectures on Practical Ethics.
2. GEOLOGY (4 hours a week).—Geikie.
3. ARCHITECTURE (3 hours a week, afternoon).—Lectures.

THIRD TERM—ELECTIVE STUDIES.

At least two of which are to be pursued:

1. GREEK.—Trendelenburg's Elementa Logica, Aristotle.
2. MODERN LANGUAGES.—German; French.
3. CHEMISTRY.—Preparation of Chemical Substances; Lectures; Laboratory Practice.
4. ASTRONOMY.—Loomis's Practical Astronomy; Observatory Work; Lectures.
5. PHYSICS.—Heat; Light; Electricity; Deschanel, Parts II., III. and IV.
6. LATIN.—Roman Archæology.
7. HISTORY.—The Historical Drama—Shakespeare, Schiller, etc.
8. HEBREW (extra hours).

3. REMARKS ON THE COURSE OF STUDY.

In the above Schedule all the studies of the Freshman and Sophomore years are prescribed, and are intended to be of such a character as will furnish the sound basis of a liberal education, whatever profession or career is subsequently chosen. During the Junior and Senior years, certain subjects are prescribed for all candidates for a degree, while other subjects are made elective, at least one of which must be pursued by each student, in the Junior year, and at least two in the Senior year.

MORAL PHILOSOPHY, PRACTICAL ETHICS AND THE DUTIES OF CITIZENSHIP.

Moral Philosophy is taught during the Senior year by the study of text-books, by comments and criticisms, and by lectures. Full and intelligent discussion in the class-room is encouraged, in the belief that mere memorizing and reciting do not so teach such truth as to make it vitally the student's own.

The definite aim of the work in this department is not simply to set before the student what certain authors have written concerning theories of morality and virtue; but to make the study of the fixed and eternal distinction between right and wrong tend directly, so far as possible, to the voluntary and intelligent acceptance of the moral law, by every student, in the daily and hourly direction of his life.

Lieber's Political Ethics is made the basis of one term's work. A course of Lectures on Practical Ethics is given; and lectures and discussions on the Duties of Citizenship are made an especial feature of this course of study.

Brief addresses are made from time to time upon the questions of Social Science, and upon the Reforms which are before the public as problems of "Applied Christianity."

LATIN.

While the chief purpose kept before the student during the early portion of the course is the thorough mastery of the

language, yet, as far as is practicable, the study of the history, institutions and literature of the Romans is pursued in connection with the Latin read. In the selection of text, care is taken to cover the principal periods of the literature, but chief prominence is given to those works which present the most valuable subject-matter for the student of Roman civilization and culture. In the latter portion of the curriculum special courses are given in Roman Oratory, Law, Philosophy, etc.

From the beginning of the course instruction is given in part by means of questions and answers in Latin. Optional classes are formed for the better development of this method, and for the study of the History, Social Life and Institutions of the Romans.

During the Junior year, the student is introduced to the Roman Law. Students who so elect, read selected titles from the *Corpus Juris*, and a text-book on the contents of the Law. The whole class study the *Jus Personarum*, and the historical development of the Law.

For students of the Senior year, there has been formed a class for the study of Classical Archæology. The method employed involves the reading of Latin authorities and essays by the student, with criticism and lectures by the Professor. The "Thomas L. Janeway, M.D. Memorial Collection" supplies copious illustrations.

Students should have Harpers' Latin-English, and White's English-Latin Lexicons, and a Classical Atlas.

GREEK.

The Classical Greek authors are read by the whole class during the entire Freshman and Sophomore years, and one term of the Junior year; also, by students who elect Greek, during the whole of the Junior and Senior years. The course is intended to embrace at least one complete treatise from a leading author belonging to each period from Homer to Lucian. While the amount read is distinctly indicated by the Catalogue, it is the purpose to vary the authors, or the portions from the same author, from year to year.

Promising students are encouraged to take special courses of

study, in addition to the regular class work; and private instruction, supplemented by an efficient library, is constantly given. The following books of reference are recommended: Smith's Classical Dictionaries, 6 vols.; Jelf's Greek Grammar; Krüger's Greek Grammar and Kühner's ausführliche griechische Grammatik; Liddell and Scott's Lexicon, 7th Oxford Edition; Grote's History of Greece, and Mahaffy's History of Greek Literature.

ENGLISH LANGUAGE AND LITERATURE.—The course in English embraces, with the elective study of Anglo-Saxon, the required study of the history of the English language and its literature, and the critical reading of English classics. A course of private reading is prescribed, upon which examinations are held. Essays in literary criticism are required during the Sophomore year. The elective study of the language and literature is pursued during the Junior year.

GERMAN is taught three hours per week, to students in both sections of the class, throughout the Junior year, and in addition to this lectures are given upon German literature. During the first term, the grammar is the main object of study, with constant practice in the translation of illustrative sentences, both from German into English and from English into German. At the same time the student is required to learn day by day short vocabularies of commonly used words, for conversational drill in the class-room. In the second term, easy German Prose is read both in set lessons and at sight, and in the third, the classical section studies selections from standard authors, both for careful translation and for literary analysis. For the scientific section, on the other hand, some scientific work is chosen, to enable them to acquire the technical vocabulary of science.

In the Senior year, German may be pursued as an elective study by the classical students; and German text-books are used with certain students in the Chemical Laboratory, and in the study of history and philosophy.

FRENCH is taught throughout the Freshman year, in the Scientific course, and is continued during the Sophomore and the

Junior years, in the use of French text-books in studying natural science and history. Classes use *French text-books in Physics* and in the *History of Civilization*. The aim of the course is to make the grammatical and linguistic training in the study of this language as valuable to the student as possible; and to accustom him to use French books and periodicals with perfect freedom in his professional studies and work.

In the Classical Course, instruction in French is offered to those who wish to take it as a study outside the course, and a course in French has been made an elective study for the Junior year.

HEBREW.—This language is taught as an extra study during the Senior year if any students desire to pursue it.

MATHEMATICS AND ASTRONOMY.

The required studies in Mathematics include Geometry, with problems and exercises in Geometrical invention, Algebra, Plane and Spherical Trigonometry with their application to problems in Surveying and Navigation, and Analytic Geometry. These are the mathematical studies of the first two years.

In the Junior year the study of the Calculus is elective.

Care is taken throughout that every principle shall receive a rigorous demonstration, and that it be applied as far as is practicable. No principle is thoroughly learned by the student until he can apply it.

Elementary Astronomy is taught during the second term to all the members of the Junior Class. The study of Theoretical and Practical Astronomy, with the use of the instruments of the Observatory, is elective in the Senior year. It is desirable that those who intend to take elective Astronomy should take the elective Mathematics of the Junior year, that they may be prepared for lectures in the more advanced part of the course.

The DANIEL S. SCHANCK OBSERVATORY of Rutgers College is well equipped for the work of practical instruction, being

supplied with a six and one-half inch refracting telescope with position micrometer, a meridian circle with four-inch object glass, a repeating circle, and other instruments. It is in telegraphic connection with other observatories.

The Observatory was designed and is used not only for independent work, but for the *instruction of students in the theory and the use of astronomical instruments, and in practical observatory work.* It affords to students unusual facilities for learning how to use astronomical instruments.

The refined methods of measurement which the use of astronomical instruments requires, the discussion of results and the determination of errors, afford a means of mental training unsurpassed in value.

PHYSICS.

This subject is taught by lectures, and copious additions are made to the matter of the text-book. Each point is demonstrated as far as possible; and the relations of the subject to ordinary natural phenomena, the processes of the industrial arts, etc., are pointed out. Students are encouraged to use the apparatus under the direction of the Professor in charge, and are trained to distinguish the essential from the casual conditions of experiments, as well as to infer from scientific data *no more* than is certain and warranted. The course begins with Mechanics and proceeds to Heat, Electricity, Sound and Light.

The apparatus is well fitted to illustrate all principles, and such additions are made to it as the industrial applications of science demand.

Students in the Scientific Course, in the study of Physics, use the Paris Edition (French) of Ganot's larger treatise.

ELECTIVE PHYSICS.

During the Senior year of the Classical course, Physics is an elective study.

The object of this election is to afford an opportunity to lay a sound, practical foundation for a post-graduate course in elec-

tricity. The work will consist of a course of laboratory exercises such as is set forth in Stewart and Gee's Practical Physics, besides preliminary study based upon the text-book used in the regular course.

BIOLOGY.

Two courses in the Biological Sciences are offered, the first *required*, of Freshmen, the second *elective* for members of advanced classes.

I. In the first course, Human Anatomy, Physiology and Hygiene are taught by recitations from text-books ("The Human Body," Martin, Briefer Course and Packard's Zoölogy, Briefer Course), during the fall and winter terms. Supplementary to this, lectures are given on Comparative Zoölogy, more especially Vertebrate Anatomy, so far as the facts help to a clearer understanding of the human body. The student is aided by demonstrations of the points considered, by means of charts, models, specimens and dissections. Classes meet two hours weekly, besides one afternoon each week for demonstration and consultation. References to accessory readings are given.

II. The second course is a Laboratory Course in General Biology of two terms, first and second. Five hours per week in lecture-room and laboratory are required. The subject of *Fermentation* is first considered, and then types of plants and animals are studied in order of increasing complexity, closing with a course in *Vertebrate Embryology*. The aim is to give a practical knowledge of the anatomy of plants and animals, both gross and minute, for the proper appreciation of the principles of Botany and Zoölogy, as presented by lectures and readings, special courses of these being given from time to time.

BOTANY.

In the spring term of the Freshman year, Botany is taught two hours per week in the Classical course and three hours weekly to the Scientific students. Gray's "Revised Lessons" is used as the text-book in descriptive Botany, and in connection

with this, the students familiarize themselves with the methods of plant analysis. Each point considered is, as far as possible, illustrated by living specimens either grown in the laboratory for purposes of dissection or collected in the fields and forests. Students are taught the methods of preparing and mounting specimens as abundantly seen in the College Herbarium, and are encouraged to make collections of their own as permanent useful records of their work. A short course of lectures upon injurious fungi and other forms of flowerless plants concludes the work of this year.

The Seniors in the Classical Course may elect a course in advanced Botany, consisting of work with compound microscopes upon the minute anatomy of plants, with special reference to those subjects having the closest relation to the growing of farm, orchard and other crops. This elective course in advanced Botany is also offered to the Seniors in the course in Chemistry and Agriculture, as an Extra.

CHEMISTRY.

INORGANIC CHEMISTRY is taught by text-book and lectures. The course extends throughout the Sophomore year, three hours per week. The subject is introduced by experimental lectures on the volume composition of substances. Then follows a careful blackboard drill on the writing of empirical and constitutional formulas of acids, bases and salts. The elements are next taken up in lectures, followed by recitations. In all cases the aim is to illustrate *every point* experimentally, thus giving the student ample experience in rigid experimental demonstration. The students are required to take full notes of the lectures, and to sketch the apparatus used in the experiments. These notes are afterwards copied and handed to the Professor for examination, criticism and correction, training the student in accurate observation, and facility and brevity of expression.

ELECTIVE CHEMISTRY.—In the Junior and Senior years, students may elect a course in Analytical Chemistry with

Laboratory Practice and Lectures. The experimental studies in this department have proved both attractive and profitable to those intending to devote themselves to Law or Medicine, or to business pursuits, as well as to men who intend to teach or to pursue lines of work immediately connected with chemistry and its applications.

The pupil begins by making the experiments in Remsen's Chemistry, thus acquiring by actual experience a familiarity with chemical substances and chemical phenomena.

The study of *Qualitative Analysis* is next taken up. The student makes the test, studies the reactions, and proceeds rapidly from analysis of simple substances to the more complex. The method here followed of keeping notes of every step affords the student valuable practice in the three divisions of experimental science—Experiment, Observation and Inference. The theory of analysis is explained in the lectures and recitations on the subject. In connection with this subject, *Blowpipe Analysis* is also taught. *Quantitative Analysis* now follows. The student having learned the means of detecting the constituents of a substance, proceeds to the determination of their amount. Pure salts of known composition are analyzed at first, so that the results may be compared with the theoretical percentages. A sufficient degree of accuracy having been obtained, substances of unknown composition, as minerals, metals, ores, waters, urines, poisons, fertilizers, coals, etc., are analyzed.

ENTOMOLOGY.

A course in Systematic and Economic Entomology is contemplated as an elective for advanced classes, and will be added as soon as practicable. The teaching will be by lectures and by practical laboratory work. The aim will be to give the student a general knowledge of Insect anatomy, and of the characters upon which the classifications are based. Especial attention will be paid to the study of the development of Insects, their relation to the vegetable kingdom and the economic problems

connected therewith. The student will be required to make an original study of some group or species of Insects, and to prepare an essay on the subject of his study.

RHETORIC.

ELOCUTION.—During the Freshman year, lectures are delivered on the general principles of Elocution, and a practical application of these principles is made by appropriate exercises in Declamation, in which the members of the class are carefully drilled. In addition to this there are exercises in Oratory by all the students, both in the class-room and the College Chapel. The Freshman and Sophomore Classes speak selected pieces; the Juniors and Seniors are required to deliver original orations.

In the department of Rhetoric, begun during the Freshman year, an effort is made to teach the principles of Composition, not as laid down in mechanical rules, but as springing from psychological laws and relations. Ideas presented in accordance with various mental requirements and influences are shown to contain the true philosophy of rational and effective discourse.

Illustrative references to the Masterpieces of Oratory, and to other forms of the best English Classical Literature, are freely given. Essays are required throughout the entire course.

EX TEMPORE SPEAKING.

The *Bussing Prizes* for excellence in *ex tempore* speaking, recently founded, are designed to cultivate the habit of presenting clearly, forcibly and accurately, and in a manner to convince an audience, the facts and ideas a student has upon themes with which he may fairly be supposed to be somewhat conversant. The repeated competitions for these prizes during the four years of the College course have already produced excellent effects.

METAPHYSICS AND LOGIC.

MENTAL PHILOSOPHY.—Porter's Elements of Intellectual Philosophy is used as a text-book during the first term and a part of the second term of the Junior year. The characteristic

doctrines of the distinctive schools in Ancient and Modern Philosophy are presented in a course of lectures upon the representative thinkers of these schools. Much attention is paid to the most important philosophical and metaphysical questions now at issue among speculators. The results of recent critical discussions, together with comments, are interspersed with the daily recitations.

LOGIC.—Jevons-Hill's text-book is used. Special care is taken to enforce a practical application of logical formulas in the resolution of arguments, and the detection of sophistries. To this end illustrative examples are drawn from different authors and much oral instruction is given.

HISTORY, POLITICAL ECONOMY AND CONSTITUTIONAL LAW.

HISTORY.—The study of History is begun in the Sophomore year with the use of a text-book giving the outlines of ancient history, followed by instruction in modern history, tracing the formation and growth of modern states. In this part of the course, a knowledge of historical geography is essential, and to this end a constant use of the historical atlas is required of the student. From time to time and increasingly as the class becomes familiar with the facts of history, and especially with the general relations of events, topics are assigned for special study, the results of such study by different members of the class and the various historical narratives which have been consulted are compared, the purposes and characteristics of historians pointed out, and instruction is given on the sources of history and historical methods.

The first term of the Junior year is given to a study of the English Constitution. In the third term Guizot's History of Civilization in Europe is used as a text-book. In lectures before the class, attention is directed to the action and reciprocal influences of political forces. The subjects assigned for essays are intended to stimulate a desire to understand the ideas which underlie the causes of events and which give to history its continuity and unity.

For students of the Senior year and for graduates, the Professor of History has formed a class in which the methods of study will be those of the so-called historical "Seminary." The following may serve as examples of the nature of the subjects proposed for investigation in this class:

Methods of historical inquiry; fields open to the American student for original historical research; the nature of local government in England and America; comparative study of local institutions in the United States; the English Government in its theory and methods.

POLITICAL ECONOMY.—Instruction is given in Political Economy to the Senior Class in the first term by means of text-books, lectures and conversational discussions. The student is required to be familiar with the leading principles of this subject as presented by the author whose work is used as a text-book, and is then encouraged to study economical problems of the present time from the historical and, so far as may be, absolutely impartial standpoint.

CONSTITUTIONAL LAW.—The Senior Class will pursue the study of Constitutional Law in the second term. With the study of the present status of Constitutional Law, a constant reference to the reports of decisions in the more important cases will serve to develop a familiarity with the processes of constitutional growth. Subjects involving constitutional questions will be assigned for the writing of essays.

During the same term the study of the History of the Constitution of the United States is pursued by the Senior Class of the Scientific Department.

INTERNATIONAL LAW.—The work of a French or German author will be made the basis of an exposition of the principles of International Law, while at the same time the acknowledged superiority of American and English authorities will be kept in view. The subject is taken up in the second term of the Senior year.

ARCHITECTURE.

ARCHITECTURE is taught during the third term of the Senior year, and is illustrated by the stereopticon, showing the successive orders and styles which have prevailed among different people and at different times.

ART LECTURES.

Beside the full and constant use of the stereopticon in the Professors' lecture-rooms, illustrating as freely as possible, by this means, the art of the world, and in addition to the course of lectures upon Architecture, for some years given to the Senior Class, there will be given in the Autumn term, this year, a course of lectures upon Modern Art, by John C. Van Dyke, L.H.D., Art Critic and Author, and Librarian of the Gardner A. Sage Library. These lectures, although delivered before the Senior Class especially, will be open to the entire College and to residents of New Brunswick who may wish to attend. The dates and hours of the lectures will be announced in the local newspapers.

PHYSICAL DEVELOPMENT—GYMNASIUM.

The Athletic Association, composed of students of Rutgers College, possesses large and commodious grounds.

The excellent *Gymnasium* in Suydam Hall, three minutes' walk from the College buildings, by the courtesy of the Theological Seminary of the Reformed Church, has been open to the daily use of the students of Rutgers.

A thoroughly qualified Instructor has been in attendance, and all students of the three lower classes have been required to take systematic exercise in the Gymnasium, under his direction and supervision.

SCIENTIFIC DEPARTMENT.

RUTGERS SCIENTIFIC SCHOOL.

BY ACT OF THE LEGISLATURE CONSTITUTED THE STATE COLLEGE FOR THE PROMOTION OF AGRICULTURE AND THE MECHANIC ARTS.

BOARD OF VISITORS.

(APPOINTED BY THE GOVERNOR.)

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* Resigned; vacancy not filled.

1. CONDITIONS OF ADMISSION.

Every applicant for admission must be at least sixteen years of age, and must submit to the President proper testimonials of a good moral character. If an applicant for a State Scholarship, he must also present to the President a certificate of appointment from the County Superintendent.

Examinations for admission will be held on the same days as for the Classical Department, viz.: On the Monday and Tuesday preceding Commencement, June 16th and 17th, 1890, beginning at 10 o'clock A. M. on Monday, in the President's office. Applicants for admission may also be examined on Tuesday, September 16th, at the same hour and place; but all students who can conveniently do so, are advised to be present in June.

From certain preparatory schools of established reputation students are admitted without examination, upon the Principal's certificate that they have completed the required amount of work and are prepared to enter College. Blanks for such certificates will be furnished upon application to the Librarian, Mr. IRVING S. UPSON, or to the President of the College.

Students may enter an advanced class either at the beginning of the College year or at other times, on condition that they sustain a satisfactory examination both on the preliminary studies and on those already passed over by the class which they propose to enter.

Provision is made for such students as wish to devote themselves to special subjects, if they are prepared to study profitably with the regular classes in those subjects; *but special students are required to take sufficient work fully to occupy their entire time.*

The following are the subjects in which those who wish to enter the Freshman Class of the Scientific Department are examined. Since all are such as can be acquired in our best common schools, *it is insisted that the preparation in them shall be thorough and complete.* The general regulations as to conditions and their removal will be the same as those which apply to the classical course, and may be found on page 18.

1. ARITHMETIC.—Fundamental Operations; Common and Decimal Fractions; Denominate Numbers, including the Metric System; Percentage, including Interest and Discount; Proportion; Square and Cube Root.

2. ALGEBRA through Arithmetic, Geometric, and Harmonic Progressions, or the first seventeen chapters of Bowser's College Algebra.

3. PLANE GEOMETRY.—The *whole* of Plane Geometry will be required.

4. ENGLISH GRAMMAR—including Spelling.

5. DESCRIPTIVE GEOGRAPHY.

6. PHYSICAL GEOGRAPHY.

7. HISTORY OF THE UNITED STATES.—Johnston's History of the United States, or its equivalent.

Students often lack thorough or recent preparation in this subject. A more accurate knowledge of American History has become necessary as preliminary to the systematic instruction now given on the duties and relations of American citizenship.

8. Such a knowledge of Elementary PHYSICS and CHEMISTRY as may be obtained from Peck's Ganot's Physics, or Wells's Natural Philosophy, and Valentine's Twenty Lessons in Chemistry, or Cooley's or Steele's Chemistry, is required for admission.

9. A short ENGLISH ESSAY is also required, to be written at the examination, on some theme drawn from books announced in advance; the essay to be correct in spelling, punctuation, division into paragraphs, grammar and expression. In June and September, 1890, the themes will be drawn from these books, which all students who apply for admission then should have read carefully: Kingsley's *Westward Ho!*; Shakespeare's *Macbeth*; Thackeray's *Henry Esmond*; Longfellow's *Miles Standish*.

In 1891, students should be familiar with Tennyson's *Enoch Arden*; Shakespeare's *Tempest*; Goldsmith's *Vicar of Wakefield*; Wordsworth's *Happy Warrior*.

In preparing the student for this course, it is recommended that he be drilled thoroughly in Arithmetic, as a clear understanding of its simple elementary and practical principles is essential to a good Mathematician. His preparation in Algebra should be *very thorough*. In addition to understanding the PRINCIPLES of the science, he must fix them in his memory, and learn their bearing and utility, and for this reason he should pay great attention to the solution of practical examples. What is needed is ability to solve ordinary examples with facility and to explain them thoroughly.

Attention is specially called to the solution of Simultaneous Quadratic Equations, and of Equations of Higher Degrees than the Second, which may be reduced to the quadratic form, and then solved by the methods of solving quadratics.

2. COURSE OF STUDY.

Three distinct courses of study are included in the schedule which follows:

I. A COURSE IN CIVIL ENGINEERING AND MECHANICS.
II. A COURSE IN CHEMISTRY AND AGRICULTURE.
III. A COURSE IN ELECTRICITY.
IV. A SPECIAL COURSE IN AGRICULTURE.

During the first year the studies of the two full courses are the same, and are designed to furnish a suitable introduction to the pursuit of the higher branches in either.

ENGINEERING COURSE.

During the last three years, the students in this course are instructed in Railroad Curves, Descriptive Geometry, Analytic Geometry, Differential and Integral Calculus, Analytic Mechanics, Civil Engineering, Bridge-Building and Geodesy; and have daily practice in Draughting, with Exercises and Problems in Geometrical Constructions, in Descriptive Geometry, Topographical, Mechanical and Architectural Drawing, and in Graphical Statics.

Students in this course, and in the Chemical and Agricultural Course, in addition to the special and technical studies of their course, pursue such studies in English, Rhetoric, Elocution, French or German, Metaphysics, Moral Philosophy, the Duties of Citizenship and the Natural Sciences as are calculated to make them broadly educated and intelligent citizens, and not mere narrow specialists.

The course of study for the first year in this department is arranged so as to be complete in itself. It is especially designed to meet the wants of those who cannot take the entire four years' course, but who desire to fit themselves for Land Surveying. Students leaving at this period of the course, receive from the Faculty a certificate of their attainments.

CHEMICAL AND AGRICULTURAL COURSE.

During the last three years, the students in this course are instructed in General, Experimental, Theoretical, Organic and Applied Chemistry, Stoichiometry, Theory and Practice of Agriculture, Determinative Mineralogy, Blowpipe Analysis, Analytical Chemistry, including the Analysis of Ores, Minerals, Coals, Waters, Technological Products, Soils, Fertilizers, Agricultural Products and Foods, Poisons, Urine and Animal Products, and the Preparation of Pure Chemical Substances. Instruction is also given in Spectrum Analysis, and Microscopical Examination. The course of study depends, to some extent, upon the student's future pursuit in life.

EXPERIMENTAL CHEMISTRY is taught in the recitation-room by carefully conducted quizes and full work in the Laboratory. The student's first and general knowledge of chemistry is obtained by his own observation.

BLOWPIPE ANALYSIS comprises the study of the various reactions and the analysis of a number of substances. The laboratory work is accompanied with constant quizzing in the recitation-room.

General Chemistry, see page 33.
Qualitative Analysis, see page 34.
Quantitative Analysis, see page 34.

STOICHIOMETRY, the mathematics of chemistry, is taught by lecture, recitation, and blackboard drill. During the course, a large number of problems are given for solution, special attention being paid to those occurring in technical work.

ORGANIC CHEMISTRY is taught by lectures, recitations, and laboratory work. Beginning with the determination of the molecular weight of organic compounds, the student is led to examine the principles of substitution, valence and structure of organic compounds. As the various substances are considered, their relations to vegetable and animal life and to agriculture

are pointed out. Attention is also given to their practical applications, as in food, medicines, dyeing, and in manufactures generally. The lectures are accompanied by full experimental illustrations.

PHYSIOLOGICAL CHEMISTRY is made the subject of lectures and class-room work. The chemical processes of animal and plant life are fully explained.

APPLIED CHEMISTRY.—The applications of Chemistry to the arts and manufactures are taught by lectures and text-book. Whenever it is practicable, the actual products are exhibited to the students, and the manufacturing processes reproduced in miniature. Attention is drawn to the scientific relations and connections between the various manufactures. The great losses by imperfect methods of manufacture and by waste products are pointed out, and the student is taught to see the true economy of production. Illustrative of the lectures, visits are made to various manufacturing establishments, of which there are a number in and about New Brunswick, and an opportunity is given to see manufacturing operations in actual working.

Principles and Theories of Chemistry are discussed and explained in a course of lectures to the Senior Class. A certain amount of the history of chemistry is also considered.

COURSE IN ELECTRICITY.

During the Freshman and Sophomore years, the studies are the same as those of the Chemical course.

In the Junior and Senior years, mechanical drill and laboratory work in Physics are substituted for advanced work in Chemistry, and for Draughting. This preparation for ordinary mechanical emergencies, enables graduates to take such positions as do not demand the full mathematical equipment of a professional electrical engineer. And those who intend to pursue Electrical Engineering after graduation, are furnished with the necessary practical basis. Manual skill and preference for mechanical work are prime requisites in all electrical pursuits,

hence, those who enter the course will be required to do the most exact work possible, and expected to show cheerful patience in tedious manipulations.

SPECIAL COURSE IN AGRICULTURE.

The Special Course in Agriculture occupies two years.

Special Students are received, and allowed to take part in the above courses, provided their previous education is sufficient; but they must take a full equivalent in hours for studies required of students in regular courses.

Particular provision is made for them, especially in the Laboratory, in the application of science to Agriculture, and in Mathematics, Surveying and Draughting.

Special provision is also made for students who desire, after completing the regular course of study, to take post-graduate studies.

Particular attention is at first paid by Graduate Students in Chemistry to the preparation of pure substances and special kinds of manipulation. The students then undertake original experimental investigations in the various branches of pure and applied chemistry, under the direction of the Professor of Chemistry. The results obtained by advanced students in these investigations are from time to time published in the scientific journals.

In connection with the instruction in Agriculture in this department, the Trustees maintain an extensive model farm, designed to illustrate the principles of agriculture.

MILITARY DEPARTMENT.

This department is in charge of the Professor of Military Science and Tactics, an officer of the regular army, detailed by the War Department for the purpose.

Instruction is both practical and theoretical.

PRACTICAL.—The student, on entering College, is drilled in the School of the Soldier, including bayonet exercise, and is

advanced, successively, to the Schools of the Company and Battalion.

Considerable attention is given to target practice, the College being supplied with latest model Springfield rifles and a liberal supply of rifle ammunition.

THEORETICAL.—During the winter and spring terms, lectures on military subjects are given, and recitations in tactics are held. Upton's Infantry Tactics is the text-book in use.

UNIFORM.—A uniform consisting of cap, blouse and trousers of dark blue cloth, has been adopted, the cost of which is considerably less than that of a good suit of civilian's clothes. The entire suit is neat and serviceable, and, while required to be worn at drills, may be worn on any occasion.

MILITARY DRILL is required of all students in the Scientific Department, except as they may be excused by reason of conscientious scruples, physical disability or some similarly valid reason.

The object of instruction in this department is not only to comply with the requirements of the laws of Congress for the State Colleges organized under the Act of 1863, but also to improve the health and physique of students, and to give that elementary military knowledge which every citizen should possess, that he may render intelligent and effective aid to his country or State in case of war or domestic riots.

ANNUAL REPORT OF THE SCIENTIFIC DEPARTMENT.

More extended information as to the studies and courses in the Scientific School will be found in the Annual Report of the New Jersey State Scientific School to the Legislature of New Jersey, which will be sent to any address on application.

3. ORGANIZATION.

This department of the College has been designated by the Legislature of New Jersey, in accordance with the law of Congress,

THE STATE COLLEGE FOR THE PROMOTION OF AGRICULTURE AND THE MECHANIC ARTS.

FREE SCHOLARSHIPS.

Under the law, a certain number of students from the State of New Jersey are received into this department of the College, and educated *free of expense for tuition.* This law also provides for the appointment by the Governor of a Board of Visitors, two from each Congressional District, who possess general powers of supervision and control. The State pupils are admitted to free scholarships on the recommendation of the Superintendent of Schools in each county and on passing the required examinations. These free scholarships are distributed among the counties in proportion to their population, as follows:

STATE SCHOLARSHIPS.

Atlantic,	1	Middlesex,	2
Bergen,	1	Monmouth,	2
Burlington,	3	Morris,	2
Camden,	2	Ocean,	1
Cape May,	1	Passaic,	2
Cumberland,	1	Salem,	1
Essex,	6	Somerset,	1
Gloucester,	1	Sussex,	1
Hudson,	6	Union,	2
Hunterdon,	1	Warren,	1
Mercer,	2		40

In June, 1888, the Trustees, to express their appreciation of the action of the Legislature in making the first appropriation yet made to further the work of the State College, voted to give to the young men of New Jersey

Ten Additional Free Scholarships "At Large."

Notice of examinations to be held in the several districts to fill vacancies which may exist in these Scholarships from time to time will be given by the State Superintendent of Education to the several County Superintendents.

Letters to the President, or to Mr. Irving S. Upson, Librarian, inquiring about vacancies, will receive careful attention.

SENIOR YEAR.

COURSE IN CIVIL ENGINEERING AND MECHANICS.

Exercises during the year in Composition, Original Declamation and Ex Tempore Speaking. Bible-Class, Sabbath morning.

FIRST TERM.

1. MORAL PHILOSOPHY (4 hours a week).—Calderwood; Lectures.
2. MECHANICS (5 hours a week).—Bowser.
3. ENGINEERING (2 hours a week).—Mahan.
4. POLITICAL ECONOMY (4 hours a week).
5. DRAUGHTING (2 afternoons each week).—Machinery and Architecture.

SECOND TERM.

1. POLITICAL ETHICS AND DUTIES OF CITIZENSHIP (4 hours a week).—Lieber, Woolsey and Lectures.
2. MECHANICS (3 hours a week).—Bowser.
3. BRIDGE-BUILDING (4 hours a week).—Wood.
4. GEOLOGY (2 hours a week).—Geikie.
5. CONSTITUTION OF UNITED STATES (2 hours a week).
6. DRAUGHTING (2 afternoons a week).—Graphical Statics as applied to Bridges, etc.

THIRD TERM.

1. PRACTICAL ETHICS (4 hours a week).—Lectures.
2. GEODESY (4 hours a week).—Lectures.
3. HYDROMECHANICS (3 hours a week).—Bowser.
4. GEOLOGY (4 hours a week).—Geikie.
5. ARCHITECTURE (3 hours a week, afternoon—optional).
6. DRAUGHTING.—Thesis.

SENIOR YEAR.

COURSE IN CHEMISTRY AND AGRICULTURE.

Exercises during the year in Composition, Original Declamation and Ex Tempore Speaking. Bible-Class, Sabbath morning.

FIRST TERM.

1. MORAL PHILOSOPHY (4 hours a week).—Calderwood; Lectures.
2. APPLIED CHEMISTRY (4 hours a week).—Wagner's Technology; Lectures.
3. QUANTITATIVE ANALYSIS (3 hours a week).—Fresenius, Cairns; Lectures on Special Methods.
4. POLITICAL ECONOMY (4 hours a week).
5. DRAUGHTING.
6. VISITS TO MANUFACTORIES.
7. CHEMICAL LABORATORY PRACTICE (9 afternoon hours a week).—Quantitative Analysis.

SECOND TERM.

1. POLITICAL ETHICS AND DUTIES OF CITIZENSHIP (4 hours a week).—Lieber, Woolsey and Lectures.
2. APPLIED CHEMISTRY (4 hours a week).—Wagner's Technology; Lectures.
3. PRINCIPLES AND THEORIES OF CHEMISTRY (3 hours a week).—Muir; Lectures.
4. MINERALOGY (2 morning and 3 afternoon hours a week.)—Crosby and Lectures.
5. GEOLOGY (2 hours a week).—Geikie.
6. CONSTITUTION OF THE UNITED STATES (2 hours a week).
7. DRAUGHTING.
8. VISITS TO MANUFACTORIES.
9. CHEMICAL LABORATORY PRACTICE (6 afternoon hours a week).—Quantitative Analysis.—Fresenius, Cairns.

THIRD TERM.

1. PRACTICAL ETHICS (4 hours a week).—Lectures.
2. APPLIED CHEMISTRY (3 hours a week).—Lectures on Waste Products and Unapplied Substances.
3. PRINCIPLES AND THEORIES OF CHEMISTRY (2 hours a week).—Muir; Lectures.
4. ASSAYING (2 hours a week).—Ricketts; Lectures; Laboratory Practice.
5. GEOLOGY (4 hours a week).—Geikie.
6. THESIS.
7. VISITS TO MANUFACTORIES.
8. ARCHITECTURE (3 hours a week, afternoon—optional).
9. CHEMICAL LABORATORY PRACTICE (8 afternoon hours a week).—Quantitative Analysis.—Fresenius, Cairns.

SOPHOMORE YEAR.

COURSE IN CHEMISTRY AND AGRICULTURE, AND IN ELECTRICITY.

Exercises during the year in Composition, Declamation and Ex Tempore Speaking. Bible-Class, Sabbath morning.

FIRST TERM.

1. EXPERIMENTAL CHEMISTRY (6 hours a week, first two months).—Remsen.

2. BLOWPIPE ANALYSIS (6 hours a week, last month of term).—Nason; Lectures.

3. CHEMISTRY (3 hours a week).—Richter; Austen's Lecture-Notes; Lectures, with Experiments.

4. PHYSICS (2 hours a week).—Ganot's Treatise on Physics, latest edition, in the French.

5. HISTORY (3 hours a week).—Fisher's Outlines; Ancient History.

6. ENGLISH LITERATURE (2 hours a week).—English Authors.

7. DRAUGHTING (2 afternoon hours a week).—Projections; Free-Hand Drawing.

8. CHEMICAL LABORATORY PRACTICE (9 afternoon hours a week).—Experimental Chemistry and Blowpipe Analysis.

SECOND TERM.

1. QUALITATIVE ANALYSIS (6 hours a week).—Fresenius; Lectures.

2. CHEMISTRY (3 hours a week).—Richter; Austen's Lecture-Notes; Lectures, with Experiments.

3. PHYSICS, FRENCH TEXT-BOOK (2 hours a week).—Lectures and Experiments.

4. HISTORY (4 hours a week).—Fisher's Outlines.

5. ENGLISH LITERATURE (1 hour a week).—English Authors.

6. DRAUGHTING (2 afternoon hours a week).—Free-Hand Drawing; Intersection of Surfaces, etc.

7. CHEMICAL LABORATORY PRACTICE (9 afternoon hours a week).—Qualitative Analysis.

THIRD TERM.

1. QUALITATIVE ANALYSIS (6 hours a week).—Fresenius; Lectures; Laboratory Practice.

2. CHEMISTRY (3 hours a week).—Richter; Austen's Lecture-Notes; Lectures, with Experiments.

3. PHYSICS, FRENCH TEXT-BOOK (2 hours a week).

4. HISTORY (2 hours a week).—Fisher's Outlines.

5. ENGLISH LITERATURE (2 hours a week).—English Authors.

6. DRAUGHTING (2 afternoon hours a week).—Shades and Shadows; Linear Perspective, etc.

7. CHEMICAL LABORATORY PRACTICE (9 afternoon hours a week).—Qualitative Analysis.

JUNIOR YEAR.

COURSE IN CIVIL ENGINEERING AND MECHANICS.

Exercises during the year in Composition, Original Declamation and Ex Tempore Speaking. Bible-Class, Sabbath morning.

FIRST TERM.

1. MENTAL PHILOSOPHY (2 hours a week).—Porter's Elements of Intellectual Philosophy; Lectures; Essays.
2. DIFFERENTIAL CALCULUS (5 hours a week).—Bowser.
3. PHYSICS (2 hours a week).—Ganot; Lectures, with Experiments.
4. GERMAN (3 hours a week).—Whitney's Brief German Grammar.
5. HISTORY (2 hours a week).—The English Constitution.
6. MINERALOGY (2 hours a week).—Lectures.
7. DRAUGHTING (2 afternoons a week).—Lettering, etc.

SECOND TERM.

1. MENTAL PHILOSOPHY AND LOGIC (3 hours a week).
2. DIFFERENTIAL CALCULUS (5 hours a week).—Completed; INTEGRAL CALCULUS—Bowser.
3. PHYSICS (2 hours a week).—Ganot; French Text-Book.
4. GERMAN (3 hours a week).—German Reader.
5. ASTRONOMY (3 hours a week).—Young.
6. DRAUGHTING (2 afternoons a week).—India Ink and Color Shading, etc.

THIRD TERM.

1. INTEGRAL CALCULUS (5 hours a week).—Completed.
2. HISTORY OF CIVILIZATION (5 hours a week).—Guizot, French Text.
3. GERMAN (4 hours a week).—Classic Authors, and a weekly Lecture on German Literature.
4. PHYSICS (2 hours a week).—Ganot, French Text.
5. DRAUGHTING (2 afternoons a week).—Construction, Copying, Tracing, Blue-Print Copying.

JUNIOR YEAR.

COURSE IN CHEMISTRY AND AGRICULTURE.

Exercises during the year in Original Composition, Declamation and Ex Tempore Speaking. Bible-Class, Sabbath morning.

FIRST TERM.

1. MENTAL PHILOSOPHY (2 hours a week).—Porter's Elements of Intellectual Philosophy; Lectures.
2. QUANTITATIVE ANALYSIS (2 hours a week).—Fresenius, Cairns; Lectures.
3. STOICHIOMETRY (3 hours a week).—Foye; Lectures.
4. PHYSICS (2 hours a week).—Ganot; Lectures, with Experiments.
5. GERMAN (3 hours a week).—Whitney's Brief German Grammar.
6. HISTORY (2 hours a week).—The English Constitution.
7. MINERALOGY (2 hours a week).—Lectures.
8. DRAUGHTING (1 afternoon a week).—Lettering, etc.
9. CHEMICAL LABORATORY PRACTICE (6 afternoon hours a week); Quantitative Analysis.

SECOND TERM.

1. MENTAL PHILOSOPHY AND LOGIC (3 hours a week).
2. QUANTITATIVE ANALYSIS (2 hours a week).—Fresenius, Cairns; Lectures.
3. ORGANIC CHEMISTRY (3 hours a week).—Pinner-Austen; Lectures.
4. PHYSICS (2 hours a week).—Ganot; Lectures, with Experiments.
5. GERMAN (3 hours a week).—German Reader.
6. ASTRONOMY (3 hours a week).—Young.
7. DRAUGHTING (1 afternoon a week).—Shading, etc.
8. CHEMICAL LABORATORY PRACTICE (9 afternoon hours a week); Quantitative Analysis.

THIRD TERM.

1. QUANTITATIVE ANALYSIS (2 hours a week).—Fresenius, Cairns; Lectures.
2. PHYSICS (2 hours a week).—Ganot, French Text-Book.
3. PHYTO- AND ZOÖ-CHEMISTRY.
4. HISTORY OF CIVILIZATION (5 hours a week).—Guizot, French Text.
5. GERMAN (4 hours a week).—Classic Authors, and a weekly Lecture on German Literature.
6. DRAUGHTING (1 afternoon a week).—Construction.
7. CHEMICAL LABORATORY PRACTICE (9 afternoon hours a week).—Quantitative Analysis.

JUNIOR YEAR.

COURSE IN ELECTRICITY.

Exercises during the year in Original Composition, Declamation and Ex Tempore Speaking. Bible-Class, Sabbath morning.

FIRST TERM.

1. MENTAL PHILOSOPHY (2 hours a week).—Porter's Elements of Intellectual Philosophy; Lectures.
2. EXPERIMENTAL PHYSICS, with problems (5 hours a week).—Ganot; Stewart and Gee.
3. PHYSICS (2 hours a week).—Ganot; Lectures, with Experiments.
4. GERMAN (3 hours a week).—Whitney's Brief German Grammar.
5. HISTORY (2 hours a week).—The English Constitution.
6. MINERALOGY (2 hours a week).—Lectures.
7. MECHANICAL DRILL (2 afternoons a week).—Elementary wood-working.

SECOND TERM.

1. MENTAL PHILOSOPHY AND LOGIC (3 hours a week).
2. EXPERIMENTAL PHYSICS, with problems (5 hours a week).—Ganot; Stewart and Gee.
3. PHYSICS (2 hours a week).—Ganot; Lectures, with Experiments.
4. GERMAN (3 hours a week).—German Reader.
5. ASTRONOMY (3 hours a week).—Young.
6. MECHANICAL DRILL (2 afternoons a week).—Wood-working; joinery and turning.

THIRD TERM.

1. EXPERIMENTAL PHYSICS, with problems (5 hours a week).—Ganot; Stewart and Gee.
2. PHYSICS (2 hours a week).—Ganot, French Text-Book.
3. HISTORY OF CIVILIZATION (5 hours a week).—Guizot, French Text.
4. GERMAN (4 hours a week).—Classic Authors, and a weekly Lecture on German Literature.
5. MECHANICAL DRILL (2 afternoons a week).—Elementary metal-working.

SENIOR YEAR.

COURSE IN CIVIL ENGINEERING AND MECHANICS.

Exercises during the year in Composition, Original Declamation and Ex Tempore Speaking. Bible-Class, Sabbath morning.

FIRST TERM.

1. MORAL PHILOSOPHY (4 hours a week).—Calderwood; Lectures.
2. MECHANICS (5 hours a week).—Bowser.
3. ENGINEERING (2 hours a week).—Mahan.
4. POLITICAL ECONOMY (4 hours a week).
5. DRAUGHTING (2 afternoons each week).—Machinery and Architecture.

SECOND TERM.

1. POLITICAL ETHICS AND DUTIES OF CITIZENSHIP (4 hours a week).—Lieber, Woolsey and Lectures.
2. MECHANICS (3 hours a week).—Bowser.
3. BRIDGE-BUILDING (4 hours a week).—Wood.
4. GEOLOGY (2 hours a week).—Geikie.
5. CONSTITUTION OF UNITED STATES (2 hours a week).
6. DRAUGHTING (2 afternoons a week).—Graphical Statics as applied to Bridges, etc.

THIRD TERM.

1. PRACTICAL ETHICS (4 hours a week).—Lectures.
2. GEODESY (4 hours a week).—Lectures.
3. HYDROMECHANICS (3 hours a week).—Bowser.
4. GEOLOGY (4 hours a week).—Geikie.
5. ARCHITECTURE (3 hours a week, afternoon—optional).
6. DRAUGHTING.—Thesis.

SENIOR YEAR.

COURSE IN CHEMISTRY AND AGRICULTURE.

Exercises during the year in Composition, Original Declamation and Ex Tempore Speaking. Bible-Class, Sabbath morning.

FIRST TERM.

1. MORAL PHILOSOPHY (4 hours a week).—Calderwood; Lectures.
2. APPLIED CHEMISTRY (4 hours a week).—Wagner's Technology; Lectures.
3. QUANTITATIVE ANALYSIS (3 hours a week).—Fresenius, Cairns; Lectures on Special Methods.
4. POLITICAL ECONOMY (4 hours a week).
5. DRAUGHTING.
6. VISITS TO MANUFACTORIES.
7. CHEMICAL LABORATORY PRACTICE (9 afternoon hours a week).—Quantitative Analysis.

SECOND TERM.

1. POLITICAL ETHICS AND DUTIES OF CITIZENSHIP (4 hours a week).—Lieber, Woolsey and Lectures.
2. APPLIED CHEMISTRY (4 hours a week).—Wagner's Technology; Lectures.
3. PRINCIPLES AND THEORIES OF CHEMISTRY (3 hours a week).—Muir; Lectures.
4. MINERALOGY (2 morning and 3 afternoon hours a week.)—Crosby and Lectures.
5. GEOLOGY (2 hours a week).—Geikie.
6. CONSTITUTION OF THE UNITED STATES (2 hours a week).
7. DRAUGHTING.
8. VISITS TO MANUFACTORIES.
9. CHEMICAL LABORATORY PRACTICE (6 afternoon hours a week).—Quantitative Analysis.—Fresenius, Cairns.

THIRD TERM.

1. PRACTICAL ETHICS (4 hours a week).—Lectures.
2. APPLIED CHEMISTRY (3 hours a week).—Lectures on Waste Products and Unapplied Substances.
3. PRINCIPLES AND THEORIES OF CHEMISTRY (2 hours a week).—Muir; Lectures.
4. ASSAYING (2 hours a week).—Ricketts; Lectures; Laboratory Practice.
5. GEOLOGY (4 hours a week).—Geikie.
6. THESIS.
7. VISITS TO MANUFACTORIES.
8. ARCHITECTURE (3 hours a week, afternoon—optional).
9. CHEMICAL LABORATORY PRACTICE (8 afternoon hours a week).—Quantitative Analysis.—Fresenius, Cairns.

SENIOR YEAR.

COURSE IN ELECTRICITY.

Exercises during the year in Composition, Original Declamation and Ex Tempore Speaking. Bible-Class, Sabbath morning.

FIRST TERM.

1. MORAL PHILOSOPHY (4 hours a week).—Calderwood; Lectures.
2. PRACTICAL ELECTRICITY (7 hours a week).—Lectures; Recitations; Laboratory Practice.—Ganot; Ayrton; Stewart and Gee; Witz.
3. POLITICAL ECONOMY (4 hours a week).
4. MECHANICAL DRILL (2 afternoons).—Metal-working; fitting and turning.

SECOND TERM.

1. POLITICAL ETHICS AND DUTIES OF CITIZENSHIP (4 hours a week).—Lieber, Woolsey and Lectures.
2. ELECTRICAL TESTING (4 hours a week).—Kempe; Munroe and Jamieson.
3. ORGANIC CHEMISTRY (3 hours a week).—Remsen and Pinner-Austen.
4. CONSTITUTION OF THE UNITED STATES (2 hours a week).
5. GEOLOGY (2 hours a week).—Geikie.
6. MECHANICAL DRILL (2 afternoons).—Construction of Instruments and Machines.

THIRD TERM.

1. PRACTICAL ETHICS (4 hours a week).—Lectures.
2. THEORETICAL ELECTRICITY (4 hours a week).—Cumming.
3. ORGANIC CHEMISTRY (2 hours a week).—Remsen and Pinner-Austen.
4. GEOLOGY (4 hours a week).—Geikie.
5. ARCHITECTURE (3 hours a week, afternoon—optional).
6. DRAUGHTING.
7. THESIS.
8. VISITS TO ELECTRICAL ESTABLISHMENTS.
9. SETTING up and Testing of Model Installations, such as Central Stations for Light and Power.

SPECIAL COURSE IN AGRICULTURE.

FIRST YEAR.

First Term.—1. Algebra. 2. Geometrical Problems. 3. Inorganic Chemistry. 4. Physiology. 5. Analytical Chemistry.

Second Term.—1. Geometry. 2. Coloring and Topographical Drawing. 3. Analytical Chemistry. 4. Book-keeping. 5. Zoölogy.

Third Term.—1. Trigonometry. 2. Mapping. 3. Analytical Chemistry. 4. Botany. 5. Farm Accounts.

SECOND YEAR.

First Term.—1. Surveying. 2. Projections. 3. Physics. 4. Care and Feeding of Domestic Animals. 5. Systematic Agriculture. 6. Analytical Chemistry.

Second Term.—1. Navigation and Nautical Astronomy. 2. Architectural Drawing. 3. Physics. 4. Geology. 5. How Crops Grow.

Third Term.—1. Leveling and Road-Making. 2. Machine Drawing. 3. Meteorology. 4. Botany. 5. How Crops Feed.

Composition and Declamation throughout the course.

The hours of lectures or recitations are either three or four each day; besides work in the Chemical Laboratory, and in the Draughting Room.

Students who pass their regular examinations in the above subjects will, at the close of their course, receive certificates of their attainments. And at the end of two or more years further, if they shall have pursued practical agriculture on a farm, and shall then pass satisfactory examinations in prescribed subjects on Agricultural principles and practice before a Board of Examiners of the Scientific School, they shall receive Diplomas in Agriculture.

THE NEW JERSEY STATE AGRICULTURAL COLLEGE EXPERIMENT STATION.

By the Act of Congress of March 2d, 1887, a law was passed entitled "An act to establish Agricultural Experiment Stations in connection with the Colleges established in the several States under the provisions of an act approved July 2d, 1862, and of the acts supplementary thereto." This act is commonly known as the "Hatch Act," from the active interest taken in its passage by Hon. Wm. H. Hatch, M.C., of Missouri. It authorizes the appropriation of $15,000 annually for the support of Agricultural Experiment Stations in connection with the Colleges which were established in the several States "for the benefit of Agriculture and the Mechanic Arts," by the Congressional Act of July 2d, 1862.

The Legislature of New Jersey, by its acts of March 16th, 1887, and of March 5th, 1888, designated the Trustees of Rutgers College "as the parties to whom all moneys appropriated by Congress under said acts of Congress or supplements thereto shall be paid for the purposes mentioned in said acts of Congress." The department of Rutgers College known as Rutgers Scientific School, is, by law, the State Agricultural College. The Agricultural Experiment Station is established in connection with it.

Already the Station is organized and at work. By the cooperation of the State Experiment Station, a large and well-fitted laboratory has been erected, and is already occupied. Investigators have been appointed upon the insect enemies of plants, upon the food-products of our fresh and salt waters, and their improvement, upon the geology and chemistry of our soils, and the effect of tillage and fertilizers upon them, upon the diseases of plants, and the application of science to the growth of agricultural and horticultural products, and upon the food consumption and the value of the products of the best five breeds of dairy cattle.

While the main business of such a Station is in searching after new truths, and arranging them for practical and economic use, the proper location for it is in connection with an institution of learning. Almost all our investigators are teachers. The investigation and diffusion of knowledge necessarily go hand in hand; and the example of men devoted to the searching for useful truths is stimulating to those who are yet in their preparatory studies, and are aspiring to fill well their places in life.

It is from those now preparing that our future investigators must come, and it is important that they should have those who are now in the field of work directly before them. In this respect it is believed the location of the Station at the College will be most salutary in its influence.

EXAMINATIONS.

The classes in both departments are examined at the close of each term. These examinations are partly oral and partly written, and have an important bearing upon the standing of the student in his class.

Unexpected examinations at irregular intervals are held at the discretion of each instructor. The object of these examinations is to cultivate the habit of considering the relations of each day's work to what has been done before, and to stimulate effort on the part of each student to gain a comprehensive knowledge of the subjects studied.

At the end of the first and third terms, the examinations of the classes of the Scientific Section are held in the presence of the Board of Visitors, who then make their semi-annual visits to the Institution.

At the end of the third term, each member of the Graduating Class of the Scientific Section is required to present a thesis on

some scientific subject, a copy of which is written out upon paper suitable for binding, and deposited in the College Library.

The final examination of the Graduating Classes is held four weeks before Commencement, from which time they are subject to such duties as are required for their preparation for Commencement.

Students who receive conditions at the June Examinations must report at College prepared to be examined upon the whole of each of the subjects on which they have conditions, at 10 A. M. on the Tuesday before College opens, in September.

GRADUATION.

To all members of the Graduating Class of the Classical Department, in full standing, the Trustees grant diplomas conferring the Academic degree of Bachelor of Arts.

To all members of the Graduating Class of the Scientific Department, in full standing, the Trustees grant diplomas conferring the Academic degree of Bachelor of Science.

To all members of the Graduating Class, in either Department, who have satisfactorily pursued special courses of study, a certificate is granted stating the studies pursued and the attainments made.

The following regulations have been adopted by the Board of Trustees regarding the graduating exercises at Commencement:

1. The privilege of speaking at Commencement shall be limited to eight men, and shall be open without distinction to the Classical and Scientific Sections of the Graduating Class.

2. The graduating honors shall be as follows:

First Honor, ...	Valedictory.
Second Honor, ...	Latin Salutatory.
Third Honor, ...	Philosophical Oration.
Fourth Honor, ...	Scientific Oration.

3. These honors and orations shall be awarded in the order named, according to grade made up of the combined marks in all the subjects of the course.

4. An oration to be known as the RHETORICAL HONOR shall be awarded to that member of the class who shall have received the highest grade in Composition and Elocution during the Junior and Senior years, *provided* he rank in general grade of scholarship among the first half of his class.

In case the Rhetorical Honor shall fall to one who has also taken one of the four honors for scholarship, an additional speaker shall be appointed according to general grade as fifth in scholarship.

5. Three other orations shall be awarded according to grade in Composition and Elocution, during the Junior and Senior years, *provided* the recipients rank among the first two-thirds of the class in general grade of scholarship.

DEGREES AND POST-GRADUATE STUDIES.

The degrees of A.M. and M.S. are no longer given "in course," but only for work done.

The Faculty will recommend for the degree of Master of Arts or Master of Science candidates otherwise properly qualified, who, after taking the appropriate Bachelor's degree—

1. Shall pursue for at least one year at Rutgers College a course of liberal and non-professional study, approved by the Faculty, and shall, beside the term examinations, pass a thorough examination on that course and present a thesis on some topic connected with it; or,

2. Who, not less than three years after taking the Bachelor's degree at Rutgers College, shall make application for the Master's degree, presenting at the same time a certificate of graduation from a Theological Seminary, a Law School or a Medical School, or of admission to the practice of Law or Medicine; or,

3. Satisfactory evidence of successful labor in that field of education or literature which may have been permanently chosen; or,

4. In case of Bachelor of Science, satisfactory evidence of successful professional work actually done and advanced professional studies prosecuted.

The degrees of Ph.D. and D.Sc. may be conferred upon resident graduates of the College who shall pursue for two years prescribed courses of study under the direction of the Faculty.

The conditions will be made known on application.

The degree of Civil Engineer is a professional one, and is, on application, conferred upon graduates of the College who have taken the degree of Bachelor of Science, and subsequently have passed three years in the practice and study of engineering, with results satisfactory to the Faculty.

The applicant is required to furnish a statement of the work upon which he has been engaged, and to present a thesis or discussion of some engineering work which he has done. The application and thesis must be presented to the Secretary of the Faculty at least one month before Commencement.

REGULATIONS.

Morning prayers are attended in the College Chapel each morning, except Saturday and Sunday, at 8:40 o'clock.

The recitation hours extend from 9 o'clock A. M. to 12 M., or 1 o'clock P. M., during five days of the week.

A Bible-Class is held Sunday morning in the College Chapel at 9:30 o'clock. All students are required to attend it.

A sermon is preached every Sunday morning in the College Chapel at 10:30 o'clock. Students are required to be present.

They are expected, also, to attend public worship in the afternoon or evening, at such place as their parents or guardians may direct.

No student is allowed to leave the city during term time without permission from the Division Officer.

Excuses for absence from all College duties must be obtained from the Division Officer.

Unexcused absences are reported to the Faculty; and a student is not allowed to make up the recitations omitted, but receives 0 as a mark.

Recitations (except in case of "Electives") are marked on a scale of 100, and the average standing of each student is made up at the end of each term, and sent to his parent or guardian. A mark at examination counts as much as one-third of the term's work up to the time of examination.

If the grade of a student in any term falls below 60 per centum of the maximum in one of his studies, he is conditioned in that study, and must be re-examined therein.

If the average of any student in any study at any time falls below 60 per centum of the maximum grade, his case must be acted on as the Faculty shall deem necessary.

If any student's average grade in any term falls below 60 per centum of the maximum, he loses his standing in his class, and is required to fall back a year in the course. If his work is not satisfactory after a month's trial here, he is dismissed from College.

Marks given in ELECTIVE work do not enter into the computation of grade; and the only official report of work done in Electives is the announcement, at the end of each term, in each student's report, that he has "failed" or "passed," or "passed with honor," in each of his elective courses.

If any student is found to be notably deficient in his daily recitations, or at the examination in any of his studies, his case is reported to the Faculty, and such action by way of discipline is taken as may be deemed necessary.

No student can be promoted to an advanced class until all his deficiencies are made up; and if he fails to make up all his deficiencies *before the opening of the College year*, he ceases to be a member of his class. Examinations for making up such deficiencies are held *on the Tuesday before the opening of the Autumn Session in September, at 10 A. M.*

COLLEGE EXPENSES.

FEES.

Tuition, per annum,	$75 00
Incidentals—Janitor, Fuel, etc., per annum,	8 00
Reading Room, per annum,	2 00
Admission Fee,	5 00
Graduation Fee,	7 50
Analytical Chemistry, extra, per term,	15 00
Electricity, extra, per term, Junior and Senior years,	10 00

Of the above expenses, the admission fees are payable, on entrance, to the College Treasurer; the incidental expenses are payable at the beginning of the first term, in September; of the tuition fees, one-third, viz., $25, is payable within ten days after the beginning of each term. All checks should be made payable to the Treasurer of Rutgers College.

Students in Analytical Chemistry are charged $15 additional per term, for chemicals and use of Laboratory, which amount must be paid within ten days after the beginning of the term. They are also expected to provide themselves, at their own expense, with the necessary sets of apparatus, which may be obtained from the regular apparatus dealers, or from the Laboratory Supplies department. These sets are retained through the year, but at the end of it, if the owners do not wish to keep them, they will be purchased at a fair price. If proper care has been exercised, a small discount only (about 10 per cent.) from the original cost will be made. All breakage will be charged in full.

Similar regulations are in effect for students in Electricity.

BOARD.

Board, with furnished room, can be obtained in New Brunswick at the present time for $4 to $7 per week; board without

rooms for $3 to $5 per week. Students having the ministry in view may obtain rooms in Hertzog Hall, in the Theological Seminary, free of charge. These rooms are heated and lighted.

The Faculty are empowered to pass such regulations relative to the number of boarders in each house as they think proper; and students shall board only at such places as are approved by them.

By combining in clubs, students are able to reduce somewhat their expense for board.

Free scholarships and pecuniary assistance may be given to young men of approved character and ability, whose family circumstances are such as to make this assistance necessary. No deserving student who has shown perseverance and capacity is allowed to give up his course for lack of assistance.

THE NEW DORMITORY.

"WINANTS HALL."

GARRETT E. WINANTS, Esq., of Bergen Point, N. J., has given to the College a handsome and spacious Dormitory, which is now in process of erection, and will be ready for occupancy, it is expected, at the opening of the next College year.

It is located on the west side of the Campus, fronting the east. The colonial style of architecture has been adopted, in harmony with the old College building, Queen's, and combining with the dignity of an academic structure the hospitality and home-likeness suggested by the American mansions of the latter part of the last and the beginning of the present century.

DIMENSIONS.—The building will be 145 feet long by 65 feet wide, the center portion being 40 x 72 feet. It will be four stories high, with basement and ample cellar.

MATERIALS.—The basement and first story will be of Newark or Belleville brown-stone, with rock-faced, regular-coursed ashlar —the columns of the recessed porches, the cornices and other trimmings, will be of cut stone. Above the first story the walls will be of red Trenton pressed brick, the pilasters and main cornice and facings of dormer windows will be of buff Roman brick, with terra-cotta enrichments. In the pediment of the center building the coat of arms of the Reformed Church and the legend of the College,—"*Sol justitiæ et occidentem illustra,*" 1766,—will be modeled in terra cotta, and over the main entrance the name of the building will be carved in stone. The steep roofs will be of slate, the deck being surrounded by a balustrade. The floors will be double and deafened; all the corridors and halls will be of maple; the dining, reception and students' rooms, of yellow pine. The doors and trimmings will be of white and yellow pine, finished in natural colors, without paint. The stairways will be of oak. The walls will be of plaster, of yellow-toned color. Handsome mantels and wainscoting of yellow pine will be in the main hall and assembly and dining-rooms. A clock with electric attachments, and possibly a small chime of bells, will be placed at the top of the building.

ARRANGEMENTS OF THE HALL.—The main entrance will be a broad Loggia or recessed porch, and there will also be entrances at both ends of the building. On the first floor will be a spacious hall, with a broad stairway as a central feature, and fire-places of Roman brick at either end, the intervening spaces being furnished for reception of visitors. The dining-room, 37 x 36 feet, is in the rear of the hall, and connected with it is a large assembly-room, 47 x 26.3 feet. These two rooms can be used together for Alumni dinners and other social and public occasions; ample serving-rooms, pantries, etc., adjoin the dining-room.

STUDENTS' ROOMS.—The building is to accommodate 120 students. The rooms are arranged in suites of a study and two single sleeping-rooms, for two room-mates, and there are a few

single rooms. Special attention is given to light, ventilation and sanitary appliances, and to the necessary quiet retirement and privacy of the students. These rooms occupy portions of the first and fourth, and the whole of the second and third stories.

The kitchen, and laundry, stewards' and servants' apartments are in the fourth story, thus securing the proper isolation and management of the employes, and freedom from the odors and other inconveniences of basement kitchens. Dumb-waiters and private stairways extend from the cellar to the fourth story. Ample provision is made for fire-escapes and other securities against accidents.

The entire building will be heated by steam, which can be made available for other purposes if deemed desirable. Bath-rooms, lavatories, linen closets and store-rooms are to be on each floor.

BENEFICIARY AID.

1. Van Benschoten Fund.

This fund, the gift of the Rev. ELIAS VAN BENSCHOTEN, in 1814, amounting to $20,813, was given in trust jointly to the General Synod of the Reformed Church and the Trustees of Rutgers College, to aid in the education of indigent students for the ministry. The students who enjoy the benefits of this fund are appointed by the Trustees of the College on the nomination of the General Synod of the Reformed Church, and receive $150 annually.

2. Knox Fund.

This fund, consisting of $2,000, was given by Mrs. REBECCA KNOX, of Philadelphia, in 1815, to the Trustees of Rutgers College, the income from it to be expended for the support of one student in the Theological Seminary.

3. W. H. Smock Fund.

WILLIAM H. SMOCK, of Marlboro, N. J., left by his will, to the Trustees of Rutgers College, the sum of $500, to be invested as a fund, the interest of which should be used to aid in the education of young men for the ministry. This legacy was received in 1859, and has been since that time duly employed for the purpose named.

4. Mandeville Fund.

In 1865, the Trustees of Rutgers College received from the executor of the will of WILLIAM MANDEVILLE, of New York city, the sum of $2,000; said sum to be invested, and the income thereof to be applied to the support of a theological student in the College.

5. Voorhees Fund.

ABRAHAM VOORHEES, of Franklin Park, N. J., bequeathed by his will $26,000 to the Trustees of Rutgers College, the income of which is to be expended in aiding worthy young men who are candidates for the ministry, while pursuing their studies in Rutgers College. A grant of $200 per annum is made to the students thus receiving aid.

6. Free State Scholarships.

The law of the State of New Jersey granting to the Scientific Department of Rutgers College the Agricultural College Endowment, provides for the education of forty State students free of expense for tuition. These scholarships are distributed among the counties in proportion to their population, and the appointments to fill vacancies are made by the County Superintendent. The appointment gives the right to a course of instruction of four years in Rutgers Scientific School, on successfully passing the entrance examinations. The Trustees of the College, in 1888, voted 10 additional scholarships "at large" for students from New Jersey in the Scientific School.

7. Board of Education.

The Board of Education of the Reformed Church grants aid to young men preparing for the ministry in the denomination. The conditions are that the persons receiving aid shall have been members of some Evangelical Church one year, and at the time members of some Reformed Church. The aid may be obtained either while in College or in the Theological Seminary.

At present the amount given is $150 per annum. Information may be had by addressing the Secretary of the Board, 26 Reade St., New York.

8. Rooms for Students.

Such rooms in Peter Hertzog Hall as may not be required for the use of the students of the Theological Seminary, are allowed to be occupied by the students of the College who have the ministry in view, and on the same conditions as the members of the Theological Seminary, *i. e.*, free of charge.

PRIZES AND HONORS.

In every case where it is expected that a prize will be awarded for work done, it is distinctly announced that unless in the opinion of the examiners the work submitted is of such excellence as to merit a prize or prizes, no prize will be awarded.

All prizes and honors are open equally to members of the Classical and Scientific Departments, except in cases where prizes are specifically limited to one department by the donor. Each competitor for a prize must sign a written declaration that the essay or other work offered by him is his original and unaided work. The essays are to be written on a paper of a

prescribed kind, and the successful essay is to be deposited in the College Library, before the writer is entitled to the prize. They are as follows:

1. Suydam Prize for Composition.

This prize, the gift of JAMES SUYDAM, Esq., is a gold medal of the value of thirty dollars, or that sum in money, and is to be given to the member of the Senior Class who shall write the best English Composition on the subject assigned to the class by the Professor of Rhetoric. Competitors must hand in their compositions on or before April 18th. The student to whom the prize is awarded must copy his composition upon paper furnished by the College, and present it for preservation in the Library, before he can receive the prize.

Subject for 1889: "The Scottish School of Philosophy; its Founders, Characteristics and Influence." The prize was awarded to HAROLD D. FORCE, of Newark, N. J.

Subject for 1890: "The Critical Estimate of the Intrinsic Value and Influence of Locke's Essay on the Human Understanding."

2. Suydam Prize in Natural Science.

This prize, the gift of JAMES SUYDAM, Esq., is a gold medal of the value of thirty dollars, or that sum in money, and is to be awarded to the member of the Senior Class who shall have made the greatest attainments in Natural Science. The examination is upon all the subjects of Natural Science in the College course, and is conducted by the Professors in those subjects. The questions and answers are required to be written.

The prize was, in 1889, awarded to J. SCOTT STILLWELL, of Lexington, Ky.

3. Brodhead Classical Prize.

This prize is the gift of Rev. Dr. JACOB BRODHEAD and his son, J. ROMEYN BRODHEAD, LL.D. It is the interest on $500, *i. e.*, thirty dollars, to be given to the best Senior Classical scholar on the following conditions:

First. "That those who offer themselves as candidates for it shall be subjected to a special examination, at a time to be fixed by the Faculty near the close of the Senior year."

Second. "That the subject of the examination be a passage or play of some Classical author (not included in the College programme of studies), to be selected by the Classical Professors, and to be announced at least one month before the time fixed for the examination."

Third. "A subject for an essay shall be announced at the same time, and the essay shall be given in on the day of examination."

Fourth. "Both the examination and the essay shall be taken into account in the adjudication of the prize. A law copy of the essay of the prize-man shall be handed in by him before the medal is put into his hands, to be preserved among the archives of the College."

Subject for examination for 1889—Books 34, 35, 36 of Pliny's *Naturalis Historia*. Theme for essay, to be written in Latin: "The Place of Pliny in the Study of Classical Art." The prize was awarded to JOHN T. E. DE WITT, of Glasco, N. Y., whose thesis was entitled: "Quantum in quaestione de pictoribus fictoribusque veteribus proficiat C. Plinius Secundus."

Subject for examination for 1890—The Eudemian Ethics of Aristotle, and Plato's Protagoras. Theme for essay to be written in Greek, "Examination of Plato's Doctrine that Sin consists in Ignorance."

4. Bradley Mathematical Prize.

This prize is given by Hon. JOSEPH P. BRADLEY, LL.D., and consists of a valuable Mathematical work, which is to be bestowed on the student of the Senior Class who shall present the best solution of a set of Mathematical problems to be proposed to the class by the Professor of Mathematics before the close of the second term.

The prize was, in 1889, awarded to ALBERT C. AREND, of Trenton, N. J.

4. In case of Bachelor of Science, satisfactory evidence of successful professional work actually done and advanced professional studies prosecuted.

The degrees of Ph.D. and D.Sc. may be conferred upon resident graduates of the College who shall pursue for two years prescribed courses of study under the direction of the Faculty.

The conditions will be made known on application.

The degree of Civil Engineer is a professional one, and is, on application, conferred upon graduates of the College who have taken the degree of Bachelor of Science, and subsequently have passed three years in the practice and study of engineering, with results satisfactory to the Faculty.

The applicant is required to furnish a statement of the work upon which he has been engaged, and to present a thesis or discussion of some engineering work which he has done. The application and thesis must be presented to the Secretary of the Faculty at least one month before Commencement.

REGULATIONS.

Morning prayers are attended in the College Chapel each morning, except Saturday and Sunday, at 8:40 o'clock.

The recitation hours extend from 9 o'clock A. M. to 12 M., or 1 o'clock P. M., during five days of the week.

A Bible-Class is held Sunday morning in the College Chapel at 9:30 o'clock. All students are required to attend it.

A sermon is preached every Sunday morning in the College Chapel at 10:30 o'clock. Students are required to be present.

They are expected, also, to attend public worship in the afternoon or evening, at such place as their parents or guardians may direct.

No student is allowed to leave the city during term time without permission from the Division Officer.

Excuses for absence from all College duties must be obtained from the Division Officer.

Unexcused absences are reported to the Faculty; and a student is not allowed to make up the recitations omitted, but receives 0 as a mark.

Recitations (except in case of "Electives") are marked on a scale of 100, and the average standing of each student is made up at the end of each term, and sent to his parent or guardian. A mark at examination counts as much as one-third of the term's work up to the time of examination.

If the grade of a student in any term falls below 60 per centum of the maximum in one of his studies, he is conditioned in that study, and must be re-examined therein.

If the average of any student in any study at any time falls below 60 per centum of the maximum grade, his case must be acted on as the Faculty shall deem necessary.

If any student's average grade in any term falls below 60 per centum of the maximum, he loses his standing in his class, and is required to fall back a year in the course. If his work is not satisfactory after a month's trial here, he is dismissed from College.

Marks given in ELECTIVE work do not enter into the computation of grade; and the only official report of work done in Electives is the announcement, at the end of each term, in each student's report, that he has "failed" or "passed," or "passed with honor," in each of his elective courses.

If any student is found to be notably deficient in his daily recitations, or at the examination in any of his studies, his case is reported to the Faculty, and such action by way of discipline is taken as may be deemed necessary.

No student can be promoted to an advanced class until all his deficiencies are made up; and if he fails to make up all his deficiencies *before the opening of the College year*, he ceases to be a member of his class. Examinations for making up such deficiencies are held *on the Tuesday before the opening of the Autumn Session in September, at 10 A. M.*

APPLETON. It consists of thirty dollars, the interest of the above sum, and will be given "to the member of the Senior Class who shall pass the best examination in Moral Philosophy."

Subject for 1889: A written and an oral examination upon Calderwood's Hand-Book of Moral Philosophy. The prize was awarded to MAURICE J. THOMPSON, of New Brunswick, N. J.

Subject for 1890: The same.

9. Bowser Engineering Thesis Prize.

A prize consisting of a valuable Engineering work is given by Prof. E. A. BOWSER, LL.D., to that member of the Engineering Section of the Senior Scientific Class who shall present the best thesis upon some Engineering subject at graduation.

The prize was, in 1889, awarded to EDWARD HOWELL, of Morristown, N. J.

10. John Parker Winner Memorial Prize in Mental Philosophy.

This prize consists of twenty-five dollars, given by JOHN WINNER, Jr., and his wife, in memory of their deceased son, JOHN PARKER WINNER. It will be open to competition for students in both the Classical and Scientific Sections who are pursuing the Study of Mental Philosophy, and will be bestowed on the one who shall pass the best examination on some work assigned by the Professor of Metaphysics.

Work for 1888: Berkley's Principles of Knowledge, Dr. Krauth's Edition, pages 72–122, and 193–281.

The prize was awarded, in 1889, to WARREN R. SCHENCK, of New Brunswick, N. J.

Work for 1890, the same as for 1889.

11. Wm. H. Van Doren Prize for the Best Essay on Christian Missions.

This prize consists of twenty dollars, the gift of the Rev. WILLIAM H. VAN DOREN, D.D. It is open to competition for

members of the Senior and Junior Classes in both sections, and for members of the Theological Seminary.

In 1889 it was awarded to MAURICE J. THOMPSON, of New Brunswick, N. J., of the Class of '89.

12. Junior Exhibition.

Eight members of the Junior Class are chosen each year, in equal numbers from the Peithessophian and Philoclean Literary Societies, who deliver original speeches at an exhibition held on the Tuesday evening preceding Commencement. The selection is made by a committee of three persons, of whom one is chosen by each Society and a third by the Faculty, and is based upon relative excellence as writers and speakers.

This prize, the gift, in 1889, of RALPH N. PERLEE, Esq., was awarded to IRVING HOAGLAND, of Franklin Park, N. J., and HENRY J. SCUDDER, of Poughkeepsie, N. Y.

13. Hart Prize in English Literature.

A prize of twenty-five dollars is offered to the members of the Sophomore Class for the best essay upon a subject in Literature; the theme is assigned by the Professor of that Department, and the prize is awarded by a committee appointed by him.

Subject for 1889: "Washington Irving." The prize was awarded to HOWARD A. REYNOLDS, of New Brunswick, N. J.

Subject for 1890: "James Russell Lowell."

14. The Bussing Prizes for Ex Tempore Speaking.

Mrs. ANN BUSSING, of New York City, has given to the College $1,000, the income of which (fifty dollars per annum) is to be expended each year for books, which shall be selected by the President of the College, and given as follows: The First Prize, of thirty dollars, to that member of the Senior Class who shall prove himself to be the best extemporaneous speaker; the Second Prize, twenty dollars, to the second-best extemporaneous

speaker of the Senior Class. The prizes are to be awarded by the Faculty of the College, or by a committee whom they shall name, and shall be awarded after a public debate to be held in the latter part of the College year. In awarding the prizes, "strict attention shall be given to logical and forcible presentation of thought, full and accurate information as to matters of fact, and grace and effectiveness in delivery." For the sake of training students in the clear expression of intelligent thought upon matters of public interest, each class has an exercise in *ex tempore* speaking twice in each term. The subject is announced to the class, and, after five minutes for thought, the members of the class discuss the subject or debate the question before a committee.

The First Prize was awarded, in 1889, to MAURICE J. THOMPSON, of New Brunswick, N. J.; the Second to GEORGE V. W. DURYEE, of Jersey City, N. J.

15. Van Vechten Prize—Essay on Christian Missions.

A. V. W. VAN VECHTEN, Esq., of New York, has founded, in honor of his mother, the late LOUISA VAN VECHTEN, and his father, Rev. Dr. SAMUEL VAN VECHTEN, a prize of sixty dollars, by the gift of $1,000, the prize "to be given annually to that student of Rutgers College who shall be adjudged by the Faculty of the Theological Seminary of the Reformed Church of America, at New Brunswick, to have presented an article, original with himself, and the best submitted—the most conclusive and inspiriting to strengthen faith in and love for Foreign Missions." Essays to be presented on or before May 1st of each year.

The prize, in 1889, was awarded to HAROLD D. FORCE, of Newark, N. J.; JAMES H. KEELING, Jr., of Utica, N. Y.; and WARREN R. SCHENCK, of New Brunswick, N. J.

16. Liebig Prize for Best Chemical Thesis.

A prize of $25, or equivalent value in books, will be given by Prof. P. T. AUSTEN, F.C.S., to that student of the Chemical

Section of the Graduating Scientific Class whose thesis, embodying the results of his study and Laboratory work, shall be adjudged to be worthy of the prize.

The prize, in 1889, was awarded to J. SCOTT SILLWELL, of Lexington, Ky.

17. The Class of 1876 Prize Fund for the Encouragement of the Study of Political Philosophy.

The Class of 1876 have given to the College, five hundred dollars ($500) as the foundation of a Prize Fund (which they express the hope that they may increase from time to time, until it shall be sufficiently large to establish a Fellowship), for the encouragement of the study of Political Philosophy. The income of this fund is to be awarded each year "to that member of the Senior Class (either Classical or Scientific) who shall be adjudged entitled to it, * * * on the basis of an original essay on some subject in Political Philosophy, assigned by the Professor of that science in the College, and upon a competitive examination in a text-book also selected by him;" the committee of award to consist of "three competent persons selected by the Faculty of the College, at least one member of the committee to be a member of the Class of 1876 as long as any may be living."

Subject for 1889: "The Dangers of Absolutism in a Democratic Republic."

The prize was awarded to HARRY R. ANDERSON, of Rahway, N. J.

Subject for 1890: "Historical and Present Relations of Church and State in the United States."

18. Upson Prize in American Literature.

For the encouragement of study in American Literature, a prize of fifty dollars is offered by the Librarian, to be awarded by a committee appointed by him, to that member of the Junior or Senior Class who shall write the best essay upon a subject assigned by him, and upon the following conditions:

First. The essay, of not more than 5,000 words, must be presented in writing upon the standard thesis paper of the College, with the understanding that the original copy is to be preserved in the College Library.

Second. Each competitor must sign his essay with a fictitious name, according to the general rules of the College, and hand it to the Librarian on or before May 1st, 1890.

Third. The prize may be withheld from any and all papers offered, either for want of merit or for failure of proper competition.

Subject for 1890: "Benjamin Franklin as a Man of Letters," to be preceded by an introductory chapter on "American Colonial Prose Writers."

19. Honorable Mention for Work outside the Course done Without Reference to a Prize.

For the encouragement of independent reading and study and original investigation, under the direction of the Faculty, honorable mention is made of students who give evidence of thoroughness in such work, and pass a satisfactory examination.

Mr. HARRY AUGUSTUS MATHER, of the Class of 1892, receives honorable mention for work done and examinations passed on L'Avare, by Molière; La Bataille de Dames, by Scribe et Legouvé; Le Roi des Montagnes and L'Homme à l'Oreille Cassée, by Edmond About.

LIBRARY.

The Library of the College is open for consultation during each term as follows: On Mondays, Tuesdays, Wednesdays, Thursdays and Fridays, from 8 to 8:40 A. M., and from 12 M. to 12:50 P. M., and from 2 P. M. to 4:30 P. M.; on Saturdays from 9 A. M. to 12:50 P. M., and from 2 to 4:30 P. M. Students are allowed free access to the books, and are encouraged to

become familiar with the proper methods of using a library for literary work.

In 1887, P. VANDERBILT SPADER, Esq., of New Brunswick (a member of the Class of 1849), gave to the College his personal library, valued at $15,000, and consisting of about 5,000 books, among them many very valuable art volumes, and collections especially rich in State and local history, and in books of reference.

In addition to this generous gift, there have been added to the Library during the past year 2,508 volumes, chiefly from the income of the PRUYN FUND (given by General ROBERT H. PRUYN, of Albany, N. Y.), and from the income to the New Jersey Agricultural College Experiment Station.

By the gift of a permanent fund of $1,000 from JAMES SUYDAM, Esq., supplemented by gifts from other sources, the Library is supplied with the leading periodical publications in the various departments.

By the courtesy of the Theological Seminary of the Reformed Church, the SAGE LIBRARY of more than 40,000 volumes is opened to the students of Rutgers for consultation; and under certain limitations books are drawn from it as well. It is within three minutes' walk of the College campus.

MUSEUM AND APPARATUS.

The Trustees solicit contributions from the friends of the College to the collections of the Museum. It is their wish to increase greatly the present valuable collections by additions in all departments. Donations of specimens illustrating Geology, Mineralogy, Natural History, Numismatics and Antiquities, and the Industrial Arts, are earnestly requested. Ample rooms are provided in the new Geological Hall for the proper preservation and display of such specimens. By the kindness of

numerous friends, suitable cases have been provided to receive the collections which the College already possesses, and they are now being arranged as rapidly as circumstances will allow.

The apparatus of the College for illustrating the various branches of science is extensive and serviceable. It has been obtained as the wants of the classes demanded, and comprises many recent additions to the Chemical and Philosophical apparatus. The students in Analytical Chemistry are provided with the requisite facilities for making analyses. The arrangements for these departments in the buildings recently erected are of the most ample and convenient description.

The Thomas L. Janeway, M.D. Memorial Collection

To illustrate Classical Archæology, is the gift of the heirs of Dr. THOMAS L. JANEWAY, of the Class of 1863.

It already includes (1) eight casts from marbles typical of the chief periods in the history of sculpture. These casts were manufactured by Brucciani & Co., of London. (2) Five hundred casts from engraved gems (cameos and intaglios) and coins, Greek and Roman. These were selected with an eye both to the study of the development of the art and to the especially full illustration of its best achievements. The workmanship on these casts is that of Augustus Ready, of the British Museum. (3) Eight hundred stereopticon slides, of which all but eighty-two were made by the well-known Levy, of Paris. (4) One thousand photographs and restorations. Among the photographers are Bonfils, of Beirût; Sommer, of Naples; Anderson, of Rome; Mansell, of London; Lombardi, of London; Quaas, of Berlin; Hautecœur, of Paris, etc., etc.

The collection, made in Europe by a member of the College faculty, is designed to illustrate the topography, art, life and literature of Ancient Greece and Rome, and for this purpose is used constantly by College classes. It is open to the public on Mondays and Thursdays from 2 until 3 P. M., and on Fridays from 12 M. until 1 P. M.

'89 Class Memorial.

The Class of 1889 presented to the College, at their Commencement in June, a valuable cast of the famous *Discobulus of Myron.*

CATALOGUES.

Former students of the College, whether graduates or not, are earnestly requested to keep the College informed of any change in their address or occupation, of works published, offices held, etc., both to facilitate the sending of the annual catalogue, and to furnish material for general catalogues, when printed. Catalogues of the College, etc., will be sent to alumni or friends of the College who send to the Librarian their addresses, for this purpose.

It is desired to secure for the Library a complete set of all the publications issued by the College or relating to it, or written or compiled by any one in connection with it, whether periodical or occasional. A complete collection of *Rutgersensia* would be of great value to the College and its friends.

Quinquennial (General) Catalogue.

Acting under a recent resolution of the Board of Trustees, the Librarian of the College, IRVING S. UPSON, A.M., is now collecting materials for a new edition of the General Catalogue, to be published in 1890.

Alumni and friends of the College are requested to notify the Librarian of the death of any of the alumni, of changes of residence, etc., and of any errors, however slight, that may have been detected in the last General Catalogue of the Alumni.

IN MEMORIAM.

George Hammell Cook, LL.D.

SINCE 1853, A MEMBER OF THE FACULTY.
SINCE 1864, VICE-PRESIDENT OF RUTGERS COLLEGE.

DIED SEPTEMBER 22, 1889.

MINUTE OF THE FACULTY.

The death of our honored colleague and dear friend, Dr. George H. Cook, since 1853 a member of the Faculty of Rutgers College, and for twenty-five years its Vice-President, is to each man of us a deep personal bereavement. To our College it is a loss heavier than any can understand who do not know, as we know, the unfailing devotion to her interests, and the strong, courageous, ever-hopeful confidence in her work and her growth which have marked his life here. We shall miss deeply his wise, far-seeing counsel and support in our management of the College. Still more sadly and keenly shall we feel the loss of his strong, earnest, always-courteous, always-cheerful presence among us; the embodiment of high scientific attainments held ever in trust for use, and steadily so obedient to the law of duty that his life was a constant incentive to useful activity.

He has had the rare power of so unselfishly entering into the life-plan and the professional work and purpose of each one of us, that his death is by each one of us felt as in a peculiar way a personal loss to himself. This same power of helpful sympathy we have long seen exemplified in Dr. Cook's rare faculty of discerning character and ability among young men who studied at Rutgers, and of putting forward the deserving, in work along lines which developed in them power and character.

It is not our purpose to attempt here and now to chronicle his services to science and education, to American scholarship, to our State, to whose growing prosperity his unselfish services in so many ways so richly contributed, or to our community, where his public spirit was felt in many lines of useful effort.

But in the deep sorrow which we share with his family we wish to assure

them, that the one whom they loved so tenderly we, too, loved most deeply, and we wish to assure our fellow-citizens of New Brunswick that the man whom they honored as the upright, public-spirited citizen, the courteous, unassuming, kindly-affectionate neighbor and friend, and the unblemished Christian man, we, his colleagues, daily and intimately associated with him, knew, with constantly deepening love and respect, as a most honorable and unselfish colleague, a great nature, and a true friend, whose loss must leave us feeling poorer for the lack of his presence, yet challenged and inspired to higher Christian and scholarly achievement by his memory, for all our remaining years.

MERRILL EDWARDS GATES,
T. SANFORD DOOLITTLE,
JACOB COOPER,
Committee.

MINUTE OF THE BOARD OF TRUSTEES.

The Trustees of Rutgers College hereby desire to place upon record their sense of the great loss sustained by this institution of learning through the death of its honored and beloved Vice-President and Professor, George H. Cook, Ph.D., LL.D. Occurring suddenly on the 22d of September, it plunged into grief not merely a closely-united family circle, and a Church in which he had long been an elder, but the whole community and State where his life-long labors had become so rightly prized. Everywhere words of praise for the dead and of sympathy for his family have been spoken with more than ordinary fervor. We, as Trustees, can only add to this tribute. We sadly feel that death has taken one of the most valuable supporters the College ever enrolled among its teachers. For thirty-six years Dr. Cook had given unstinted labor to the advance of its intellectual life. With wonderful energy, with heartfelt sympathy, he had devoted his talents and influence to the upbuilding of its interests. Before his coming in 1853, the course of Natural Science had been in a measure undeveloped. Under Dr. Cook's fostering enthusiasm that department soon became of equal importance with other branches of learning.

After a few years appointed to the position of State Geologist, and discharging his duties in that office with fidelity and wisdom, he brought honor to the name of Rutgers College in every part of New Jersey. Largely by the personal influence his labors had gained, this College was made the Scientific and Agricultural School of New Jersey. In the special progress made by the Col-

lege during the past twenty-five years, Dr. Cook's counsel, reputation and work were marked features. He was one always to be trusted. With ever-increasing attainments in physical science, he always maintained his position as a devoted Christian man. He never ran after theories. He found no conflict between God's work and God's Word. Such teachers are among God's best gifts, especially as we remember how easily those who unlock the treasures of Nature affect young hearts for good or evil.

What he was as an instructor, hundreds of his students have already testified. He stimulated them by his own industry, he rewarded the faithful by his quick approbation. By the breadth of his knowledge so freely imparted, he won the admiration of his classes. But by his simplicity and sympathy he gained far more. The students honored their teacher, but they loved their friend. To many of this present body of Trustees he bore a peculiar relation. With the older members he had shared the struggles and the successes marking the life of the College for more than a generation. By the younger he was regarded not so much as one of a body of Professors, but as a personal benefactor. They always greeted him as one who had done much in moulding their manhood. Association with him had directed, enlarged and uplifted their lives.

And now, that his memory blends with the thoughts of associates who preceded him to the better life, we bow in resignation to God's higher will. We would express a greater confidence that this College, so dearly loved by our departed friend, is destined for a still larger work of usefulness. Every such name as that of Dr. Cook enriches the present and makes the future more secure. Our loss brings the tribute of grief. But we would yield a higher tribute, as, passing on in the same path our friend pursued, we determine by God's blessing that the progress of our College shall not be stayed, but that it shall yield a yet grander influence for God and man.

WM. R. DURYEE,
J. B. DRURY,
JONATHAN DIXON,
Committee.

REGISTER.

1. SOPHOMORE ORATORS, CLASS OF 1891.

Joseph Compton Castner,	New Brunswick, N. J.
John Howard Raven,	Brooklyn, N. Y.

The following are named in the order of their appointment according to merit:

S. Cliffton Mabon,	New Brunswick, N. J.
Howard A. Reynolds,	New Brunswick, N. J.
Walter C. Sampson,	New Brunswick, N. J.
James C. Stout,	New Brunswick, N. J.
Harry T. Dayton,	Brooklyn, N. Y.
Clifford H. Strang,	Montrose-on-Hudson, N. Y.

2. JUNIOR ORATORS, CLASS OF 1890.

JUNIOR EXHIBITION, JUNE 18, 1889.

Peithessophian Society.	Philoclean Society.
Howard Elting.	G. J. Folmsbee.
Irving Hoagland.	A. F. Mabon.
L. W. Stotesbury.	W. R. Schenck.
E. B. Van Arsdale.	H. J. Scudder.

3. GRADUATING EXERCISES, CLASS OF 1889.

COMMENCEMENT, JUNE 19, 1889.

HONORS.

Maurice Joseph Thompson, ... New Brunswick, N. J.
Valedictory, First Honor.

John Ten Eyck De Witt, . . . Glasco, N. Y.
Latin Salutatory, Second Honor.

James Harvey Keeling, Jr., . . . Utica, N. Y.
Philosophical Oration, Third Honor.

John Phillips Street, ... Beverly, N. J.
Scientific Oration, Fourth Honor.

Maurice Joseph Thompson, ... New Brunswick, N. J.
Rhetorical Honor.

ORATIONS.

HARRY RANDOLPH ANDERSON, . . .	Rahway, N. J.
CHARLES JUDSON SCUDDER, . . .	Saugerties, N. Y.
CHARLES MAAR, ...	Poughkeepsie, N. Y.
GEORGE VAN WAGENEN DURYEE, . .	Jersey City, N. J.

MASTER'S ORATION.

GEORGE EDWIN TALMAGE, ...	Garfield, N. J.

4. DEGREES CONFERRED.

Degree of Bachelor of Arts Conferred on Candidates in Course.

HARRY RANDOLPH ANDERSON,	HARVEY LOSEE,
ARTHUR J. COLLIER,	CHARLES MAAR,
BYRON CUMMINGS,	KUMAKICHIRO OISHI,
JOHN TEN EYCK DE WITT,	HENRY LIVINGSTON RUPERT,
GEORGE VAN WAGENEN DURYEE,	SAM CORLE SCHENCK,
WILLIAM WATSON HALLOCK,	CHARLES JUDSON SCUDDER,
BALDWIN HASBROUCK,	GEORGE JOSEPH STEINMETZ, JR.,
JAMES HARVEY KEELING, JR.,	ELIAS WORTMAN THOMPSON,
GEORGE ARMSTRONG LIGGETT,	MAURICE JOSEPH THOMPSON.

Degree of Bachelor of Science Conferred on Candidates in Course.

ALBERT CORNELIUS AREND,	GEORGE MORRIS,
HAROLD DIOSSY FORCE,	WILLIAM SHIELDS MYERS,
RICHARD THURSTON GREENE,	JOSEPH SCOTT STILLWELL,
EDWARD HOWELL,	JOHN PHILLIPS STREET.

Degree of Master of Arts Conferred.

MORRIS NORTON BEMUS, '85.	WARREN HARDENBERGH DIXON, '86.
LOUIS FAUGÈRES BISHOP, '85.	AARON LONGSTREET STILLWELL, '86.
GEORGE VAN NEST BALDWIN, '86.	THOMAS ALFRED STODDART, '86.
EDWARD WILKINS DEWEY, '86.	GEORGE EDWIN TALMAGE, '86.

Degree of Master of Science Conferred.

WILLIAM HENRY LUSTER, JR., '84.	ELMORE DE WITT, '86.
CHARLES SANDERSON CATHCART, '86.	JOHN MOYER FARLEY, '86.

Degree of Civil Engineer Conferred.

WILLIAM HENRY LUSTER, JR., '84.	JOHN MOYER FARLEY, '86.

Honorary Degrees Conferred.

A.M.—Eugene H. Porter, M.D.,	New York City.
A.M.—H. Genet Taylor, M.D.,	Camden, N. J.
A.M.—N. Dunham Van Syckel,	Anniston, Ala.
A.M.—Peter Garretson Wyckoff,	Bayonne, N. J.
L.H.D.—John C. Van Dyke,	New Brunswick, N. J.
L.H.D.—Albert S. Cook, Ph.D., '72,	New Haven, Conn.
D.D.—Rev. N. H. Van Arsdale, '62,	Paterson, N. J.

5. CERTIFICATES FOR SPECIAL WORK.

William Eugene Breazeale,	Anderson, S. C.
John Francis Hagerty,	New Brunswick, N. J.
Albert Bodwell Harrison,	Irvington, N. J.
James Hasbrouck Le Fevre,	Middlebush, N. J.
Frank Halsey Skinner,	Belleville, N. J.

6. PRIZES AWARDED, COMMENCEMENT, 1889.

GENERAL PRIZES.

Van Vechten Prize for Essay on Foreign Missions,	H. D. Force, J. H. Keeling, Jr., W. R. Schenck.
Van Doren Prize for Essay on Christian Missions,	M. J. Thompson.

SENIOR PRIZES.

Suydam Prize for Composition,	H. D. Force.
Suydam Prize for Natural Science,	J. S. Stillwell.
Brodhead Classical Prize,	J. T. E. De Witt.
Bradley Mathematical Prize,	A. C. Arend.
Appleton Prize for Moral Philosophy,	M. J. Thompson.
Bowser Prize for Best Engineering Thesis,	Edward Howell.
Liebig Prize for Best Chemical Thesis,	J. S. Stillwell.
Bussing Prize for Extemporaneous Debate, 1st,	M. J. Thompson.
Bussing Prize for Extemporaneous Debate, 2d,	G. V. W. Duryee.
Class of '76 Political Philosophy Prize,	H. R. Anderson.

JUNIOR PRIZES.

John Parker Winner Memorial Prize for Mental Philosophy,	W. R. Schenck.
Perlee Junior Orator Prize,	Irving Hoagland, H. J. Scudder.

SOPHOMORE PRIZES.

Myron W. Smith Prize for Declamation, 1st,	J. C. CASTNER.
Myron W. Smith Prize for Declamation, 2d,	J. H. RAVEN.
Hart English Literature Prize,	H. A. REYNOLDS.
Spader Prize for Modern History, 1st,	H. T. DAYTON.
Spader Prize for Modern History, 2d,	J. H. RAVEN.

FRESHMAN PRIZES.

Tunis Quick Grammar and Spelling Prize,	J. D. CARR, M. DEMAREST.
Sloan Entrance Examination Prize, 1st,	C. E. CORWIN.
Sloan Entrance Examination Prize, 2d,	J. B. THOMAS.

7. CLASS-DAY EXERCISES.

CHAPEL.

President,	M. J. THOMPSON, New Brunswick, N. J.
Orator,	*G. B. THOMPSON, Colt's Neck, N. J.
Poet,	R. T. GREENE, Elizabeth, N. J.
Historian,	H. R. ANDERSON, Rahway, N. J.
Presenter of Class Memorial,	J. H. KEELING, JR., Utica, N. Y.
Prophet,	G. V. W. DURYEE, Jersey City, N. J.
Address to Lower Classmen,	W. W. HALLOCK, Brooklyn, N. Y.
Presenter of Mementoes,	G. A. LIGGETT, Rahway, N. J.

CAMPUS.

Ivy Orator,	CHARLES MAAR, Poughkeepsie, N. Y.
Ivy Planter,	S. C. SCHENCK, Lambertville, N. J.
Ivy Ode,	BYRON CUMMINGS, West Bangor, N. Y.
Pipe Orator,	EDWARD HOWELL, Morristown, N. J.
Address to President,	KUMA OISHI, Tokio, Japan.
Committee,	W. S. MYERS, Sidney, N. Y. A. J. COLLIER, Coxsackie, N. Y. J. P. STREET, Beverly, N. J.

*Deceased October 28th, 1888.

8. MILITARY ORGANIZATION.

SAMUEL E. SMILEY,
Second Lieutenant, Eighth U. S. Infantry, *Commandant.*

STAFF.

HOWARD GOFF, *Adjutant.*
W. M. OSBORN, *Sergeant-Major.*

COMPANY A.		COMPANY B.	
Captain,	H. ELTING.	*Captain,*	S. H. LOCKETT, JR.
Lieutenants,	A. P. FORD, J. E. IRICK.	*Lieutenants,*	C. DIVINE, L. W. STOTESBURY.
First Sergeant,	S. A. JOHNSON.	*First Sergeant,*	I. M. SUTTON.
Sergeants,	G. A. MITCHELL, F. S. SMITH, J. C. CASTNER.	*Sergeants,*	P. J. CHALLEN, A. B. TOTTEN, J. C. AYDELOTT.
Corporals,	F. F. FISHER, H. E. BRUERE, G. C. BULLOCK.	*Corporals,*	P. C. FIELD, A. H. BERRY, W. J. COOPER.

9. ALUMNI ASSOCIATION.

OFFICERS FOR THE YEAR 1889–1890.

President,	HON. GARRET A. HOBART, '63.
Vice-Presidents,	J. R. HOAGLAND, ESQ., '52. REV. I. P. BROKAW, '66. J. N. CARPENDER, ESQ., '66. REV. P. T. POCKMAN, '75.
Secretary,	DR. A. V. N. BALDWIN, '79.
Treasurer,	T. B. BOORAEM, '81.
Necrologist,	I. S. UPSON, '81.
Inspectors of Election of Alumni Trustees,	H. A. NEILSON, '73. F. P. HILL, '83. A. H. STRONG, '74.
Orator Primarius,	G. D. W. VROOM, ESQ., '62.
Orator Secundus,	REV. GEORGE SWAIN, '63.

10. VEDDER LECTURERS.

REV. ALAN D. CAMPBELL, 1889, ... Castleton, N. Y.
REV. JOHN A. DE BAUN, D.D., 1890, ... Fonda, N. Y.

RUTGERS COLLEGE GRAMMAR SCHOOL.

FOUNDED 1766.

E. H. COOK, A.M., PH.D., HEAD-MASTER.

DR. COOK, in assuming the Head-Mastership of this school, desires to assure its former patrons and friends that no efforts will be spared to place this Institution in the front rank of schools of a similar character.

While the careful preparation for Colleges and Scientific Schools will be its chief aim, attention will also be paid to students desiring to prepare for business.

The Head-Master has spent many years in the special study of *physical habits* and *culture* as applied to student life, and will give personal attention to all matters pertaining to the health and proper physical development of the boys placed under his care.

Mrs. Cook, an educated and refined lady of earnest Christian character, with a warm place in her heart for boys, will unite with her husband in making a pleasant and attractive home for the pupils.

Dr. Cook, recognizing the great value of *systematic habit in education*, will have at the "Home" *regular hours for study under the direction of sub-masters, who will always be present and ready to render needed assistance.*

The number of pupils at the "Home" is limited to *forty*, and each boy will receive individual attention and care.

LOCATION.

The location of a thorough preparatory school in a city like New Brunswick is most fortunate. On the Pennsylvania R. R., it is easy of access, being only about one hour's ride from New York, and one and one-half hour's from Philadelphia. Trains are passing at all hours of the day. The influences of a College town are excellent for intellectual work. Often parents send their sons to be trained in such a town, to cultivate and stimulate a desire for a more advanced course of study.

New Brunswick is a most healthful location.

ADMISSION.

Pupils will be received at any time. It is earnestly urged, however, both for the individual and the class, that pupils enter promptly at the beginning of the year or quarter.

Each pupil will bring with him a certificate of good moral character from the last school he attended, or from the pastor of the church he has attended.

PREPARATORY AND PRIMARY DEPARTMENTS.

The work in this department is designed to prepare boys of the youngest school age for the more advanced work of the school. The number of pupils is limited. Special care is taken in regard to the morals and language of each boy.

The work of this department will be continued for the coming year by Miss ESTHER A. ANDREWS, who was for years engaged in similar work in the Albany Academy, at Albany, N. Y., and who has to a marked degree won the love and esteem of those under her care the past year. Parents can place their boys under Miss Andrews' care with perfect confidence that their work will be well directed.

For any further information address E. H. COOK, Ph.D., Head-Master, Rutgers College Grammar School, New Brunswick, N. J.